REVISIONAL NOTES ON AFRICAN *CHARAXES, PALLA* AND *EUXANTHE* (LEPIDOPTERA : NYMPHALIDAE)

PART X

BY

VICTOR GURNER LOGAN VAN SOMEREN

The Sanctuary, Ngong, Karen, Kenya

Pp. 65–136; 19 *Plates*; 9 *Text-figures*; 3 *Maps*

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REVISIONAL NOTES ON AFRICAN *CHARAXES, PALLA* AND *EUXANTHE* (LEPIDOPTERA : NYMPHALIDAE)

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By V. G. L. VAN SOMEREN

CONTENTS

SYNOPSIS

This final part of the series deals with the *Palla* and *Euxanthe* complexes, each of which, following Rydon (1971 : 231), is regarded as constituting a separate subfamily. Three new subspecies are described in *Palla* and one in *Euxanthe*. A synoptic list of all the species and subspecies dealt with in this series is given, together with a complete list of references and a complete index to all ten parts; there is also a list of corrigenda to the earlier parts. In the Addenda section dealing with *Charaxes*, three new subspecies, one form and one aberration

are described, nine taxa of the 'black' *Charaxes* complex are raised to specific status and five new names are proposed to replace junior homonyms.

THE *PALLA* COMPLEX

IN THIS complex there is a group of characteristic species, the males of which are confusingly alike, all conforming to a similar pattern on the upperside with black fore and hind wings crossed by conspicuous bars, white in the former and white and tawny orange-brown in the latter. The undersides also exhibit a very similar ground colour on both fore and hind wings, crossed by a white bar which passes through both. On the other hand, the females are more distinctive, one species having a male-like female, the others having females which are more sexually dimorphic.

Members of this complex are usually placed in the subfamily Charaxinae, but in view of the distinctive characters of their ova, larvae and pupae, which differ markedly from those of *Charaxes*, the restricted food-plants, which belong to the Convolvulaceae, the different habits and, moreover, the genitalia, which are distinctive and quite unlike those of *Charaxes*, I agree that they should be placed in a separate subfamily, the Pallinae, the name proposed by Dr A. H. B. Rydon (1971 : 230).

Aurivillius (1912) has pointed out that there are characters in the venation, especially in the hind wing, and mentions that the middle and hind tibiae are without spines above. These may be considered merely generic characters.

Schultze (1917 : 593–595) also has some cogent remarks to make on the genus.

For an account of the early stages see Schultze (1916 : 126) for ova and larvae, van Someren & van Someren (1926 : 350, pl. 77, figs 1, 2), van Someren & Rogers (1930 : 31, pl. 106) and Rydon (1971), also the line drawings which accompany these notes (see Text-figs 7–9, p. 79).

When considering the problem of zoogeographic variation, one must constantly keep in mind the fact that one is dealing with species distributed throughout several more or less well defined ecological areas which are as follows.

Occidental Africa, comprising Senegal, Guinea, Sierra Leone, Ivory Coast, Liberia, Ghana, to western Nigeria.

Eastern Nigeria, east of the Cross River, Cameroun, Central African Republic, Zaire, Congo (Brazzaville), N. Angola (a subdivision of this includes the south-western corner of Cameroun, Guinea and Gabon).

The Congo Basin, including the Kasai district to eastern Zaire, western Kivu district, Stanleyville, Nawamba-Beni-Irumu, west of the Semliki River.

The Katanga district.

The Central Rift areas: Rwanda, Burundi, S.W. Uganda, especially the Kigezi country, the Bwamba Valley west of Ruwenzori, and the districts of western Uganda. The eastern subdivision includes central Uganda and N. W. Kenya, Elgon area.

The north-western corner of Tanzania including the Kigoma district to the north-east of Lake Tanganyika.

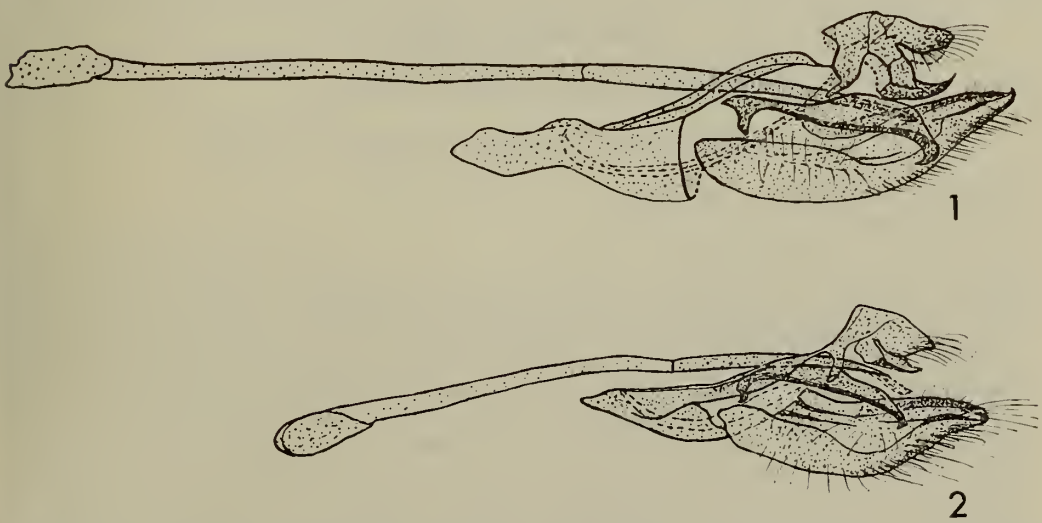
With the above in mind, one may attempt to solve the *Palla* problem. The species involved are: *Palla decius* (Cramer, 1777), *P. ussheri* (Butler, 1870) *P. violinitens* (Crowley, 1890) and *P. publius* Staudinger, 1892.

Palla decius (Cramer)

(Pl. 1, figs 1–4; Map 2)

Papilio decius Cramer, 1777 : 26, pl. 114, figs a, b.
Palla decius (Cramer) Kirby, 1871 : 273.
Palla decius f. *sagittarius* Rousseau-Decelle, 1934 : 235.

MALE. Fore wing length 38 mm. Shape falcate, but apex rounded; the outer margin concave at 4–5; hind angle projecting but rounded. *Upperside.* Fore wing, ground colour black, wing crossed by a white bar commencing just beyond the cell, 5 mm at costa and expanding gradually through spaces 2–3 and reaching the hind margin at mid point where it is 7 mm wide; its inner border with some blue scaling most conspicuous at end of cell and bases of 2–1*b*. Hind wing, ground colour black on border, slightly browner at base and inner fold where there is a whitish streak above the anal angle, the disc of the wing crossed by a white bar 5 mm wide at costa, reaching the upper part of the cell, then shading to orange and orange-tawny and expanding distally to the hind angle to reach vein 4. There is a conspicuous black rounded spot on submargin at vein 2 and an orange spot with white-centred black in the submargin above the orange-tawny tail at end of vein 4, with traces of a spot in cellule above. Edge of wing slightly undulating; anal angle squared, but rounded at tip. *Underside.* Fore wing, basal area rich brownish black, distally flanked by a conspicuous white bar, more or less as above; the distal portion of the wing with obscure silvery white ground in postdiscal zone, crossed by fine black lines in decreasing distance apart until on the border where the ground colour is uniform brownish black. Hind wing, basal area and greater part of inner



FIGS 1, 2. *Euxanthe*, ♂ genitalia. 1, *E. wakefieldi* (Ward) (Tanzania: Amani), slide no. R. 337; 2, *E. tiberius* Grose-Smith (Kenya: Shimba Hills), slide no. R. 338. (A. H. B. Rydon del.)

fold deep brownish black, finely lined on the inner fold, and sharply defined from the white bar which on its distal side and the border is silvery white with fine cross lines of increasing density toward the border, with some silvery rays at the edge above the tail and at anal angle. Margin rusty brown with whitish lunules proximally, carrying blue-black dots, enlarged to an ocellus in space 2, and some silvery scales at anal angle, but edge above the tail blackish brown.

FEMALE. Larger than the male, fore wing length 40 mm. Shape like that of the male, but slightly less falcate. *Upperside.* Fore wing, ground colour, base more brownish, distal portion also brownish. The white bar conspicuous as in the male but more curved on its inner edge, the upper portion of the bar shading to orange distally and on the outer edge, especially in spaces 4–3. Postdiscal zone with a series of tawny-orange spots, palest at costa and rather angled; spot in space 4 smaller and set in. Hind wing, base and upper part of inner fold brownish. Disc of wing crossed by a broad white bar of equal width, 4–5 mm wide, but tapering to above the hind angle. Border of wing brownish, with a series of pale rufous spots distally, from upper angle to tail; a marked ocellus with blue-black centre at 2; anal angle rufous with two white dots. Tail at end of vein 4 long and rounded at tip, 4–5 mm. *Underside.* Fore wing, basal area brown, edged black; a few dark lines margined in white in the cell, bordered distally by a whitish bar, sharply defined proximally but shading to buffy distally, the edge dyslegnic and merging into the greyish brown border which is lined with fine dark lines of increasing density, becoming brownish on the border. The disco-submarginal zone with a series of buffy ochreous spots corresponding to those above present, but rather obscured. Hind wing, basal area brown, similar spots to those of fore wing in disco-submarginal area but more lunate; a conspicuous ocellus at vein 2 with blue-centred black spot. Anal angle rufescent with two white dots; border of wing slightly rayed at upper angle and in the region of the tail; margin of wing rufescent with small whitish blue dots on admargin; edge brownish. The inner fold has fine dark lines.

The underside of this species is more variegated than the majority of those in the group.

RANGE. French Guinea, Sierra Leone, Congo (Brazzaville), Kasai and N. Angola.

Palla ussheri (Butler)

Palla ussheri ussheri (Butler)

(Pl. 1, figs 5–8; Pl. 2, figs 9, 10, 14; Text-fig. 3; Map 2)

Philognoma ussheri Butler, 1870 : 124.
Palla ussheri (Butler) Kirby, 1871 : 273.
Palla ussheri f. *ferruginea* Schultze, 1914 : 83.

MALE. Fore wing length 35 mm. Shape falcate but apex rounded; hind angle projecting slightly. *Upperside.* Fore wing, ground colour black, crossed by a conspicuous white bar, as in *decius*, but narrower throughout, the inner edge only slightly shaded with greyish, the portion in space 1*a* is oblique on its inner side. Hind wing, ground colour brownish black at base shading to brownish on inner fold; border of wing black, widest at 4–5, then tapering to above the hind angle; the intervening space at costa at vein 6 is white, then shading to orange and tawny-orange, clearly defined basad and extending to outer side of tail at vein 4, and on the inner border shading to brownish on the inner fold which has a pale spot at the anal angle; the space above the tail with black-centred orange spot and a more conspicuous black spot with white centre in space 2 of the submargin. Tail 4 mm long, slightly tapered, tip rounded and pale. *Underside.* Very similar to *decius* but rich brown of basal areas of both wings more curved on outer edge. Fore wing, cell with four black and white cross lines; the inner crossed by fine wavy black lines. The conspicuous white bar narrower, but expanded to 6 mm at the

hind margin, its outer edge flanked by a zone of fine black lines darkening to a series of obscure dark spots in the submarginal zone which extends from the subapex to the hind margin; border brownish. Hind wing with narrow white bar, gently curved, accentuated proximally by black, and on its distal side flanked by fine black lines gradually becoming closer and more dense toward the submargin, but with a pale streak along vein 4. The submargin brownish black with brownish marks in admargin with increasing black, white-centred dots, that in space 2 forming a conspicuous ocellus with marked central spots and with a white line proximally; the anal angle more rufous with two white dots; edge brownish black.

FEMALE. Resembling female *decius* somewhat, but the colours brighter and stronger. *Upperside*. Fore wing, base dark brownish, paler along the inner fold; distal portion of wing blacker, the intervening white bar, strongly defined on its inner border, is shaded with orange and very faint wavy black lines distally, becoming less strong toward the hind border, 5 mm wide at costa and gradually widening to 11 mm at the hind margin. A conspicuous series of tawny orange spots present in the postdiscal submarginal line, small and pale at the costa, large in spaces 5–3 to the hind angle, the spot in 4 inset a little. Apex and border of wing brownish black. Hind wing, white bar slightly shaded with greyish proximally, and with orange distally, is 8 mm wide at the costa, slightly less at 4, then tapering to above the hind angle where there is a white streak. Distal portion of wing blackish, shading into the orange on the distal side of the white bar. In the submarginal area is a series of large orange spots, slightly paler proximally, the lower ones with purplish-centred dots developing into a conspicuous ocellus in 3; the anal angle with two white dots. Tail at end of vein 4 robust, rounded and pale at end, 5 mm long. *Underside*. Generally paler than in the male, the basal areas of both wings paler brown; fore wing, white bar outlined in black proximally, much narrower than above, being encroached upon by the greater extent of the wavy black lines, especially at the upper end. The submargin carries a series of confluent tawny-orange spots outlined in black at apical end, the two subapical spots whitish, partly obscured by the wavy lines; border of wing more uniform pale brownish. Hind wing with a restricted white bar sharply defined proximally, but reduced distally by the very dark lines which extend to the submargin where there is a series of tawny-orange spots, white-edged proximally and each bearing a white-centred black dot, strongly marked above the tail and represented in space 3 by a conspicuous ocellus which is shaded with olive distally. The anal angle is orange-tawny, with two white dots. Pale rays are present in the border along veins 4 and 6.

RANGE. Sierra Leone to west Nigeria, west of the Cross River.

♀ form ***dobelli*** Hall **stat. n.**

(Pl. 3, figs 19, 20; Map 2)

Palla dobelli Hall, 1919 : 199.

Described from a single female taken at Bitje, Cameroun, this specimen was placed as a form of *Palla moderata* Gaede, 1915, also from Cameroun, by Bryk (1939 : 547). It has also been placed under *Palla ussheri* and considered to have precedence over *ussheri interposita* Joicey & Talbot, 1925, described from Uganda.

In my opinion *dobelli* is one of the female forms found amongst the intermediate aggregate, ranging from Cameroun to E. Congo (Pl. 2, figs 12, 13, 15). In this aggregate, the males are very similar to nominate *ussheri*, both above and below, but the pattern is less contrasting. The same applies in a general way to the females, where the variation is from a specimen very similar to the nominate form, to one in which the upperside pattern is similar to that of the type *dobelli*, the underside pattern also less strong than in the nominate form.

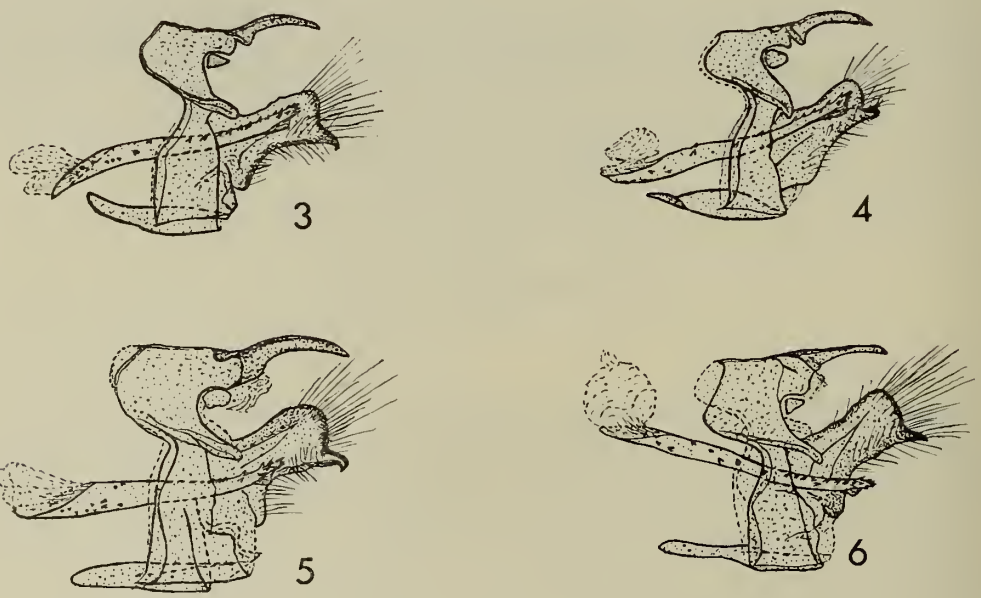
Palla ussheri interposita Joicey & Talbot

(Pl. 3, figs 18, 21–24; Pl. 4, fig. 25; Text-fig. 4; Map 2)

Palla ussheri interposita Joicey & Talbot, 1925 : 646.

MALE. Fore wing length 38–41 mm; shape as in the nominate race. *Upperside.* Compared with nominate *ussheri* general coloration and pattern very similar, but the fore wing white bar, though narrow at the costa expands to 8 mm at the hind margin and is shaded more with greyish proximally. The basal dark area not so blackish. The hind wing band, mainly orange to tawny-orange, though paler toward the costa, is wider, the orange area is less defined on its proximal border and wider at distal end but more restricted at base of tail, leaving the orange spot above the tail free. The ocellus towards tornus larger; the two white spots at anal angle more distinct. *Underside.* Forewing very similar to nominate race but basal areas paler brown; the hinder part of the white bar less expanded and the distal side of the bar more encroached upon by the wavy dark lines which, however, have satiny, obscure spots in the postdiscal line and in the subapex. Hind wing exhibits similar differences as on the fore wing, the satiny whitish rays at veins 4 and 6 more distinct, so also the submarginal silvery lunules; the ocellus at the outer margin larger and more conspicuous, the ground colour being more olive-brown; the tail dark but orange-tipped.

FEMALE. Larger than the male, fore wing length 42 mm. *Upperside.* Coloration rather different to that of the nominate race, much less strongly patterned. The basal areas of both wing bluish grey, slightly darker in the cell. Fore wing, white band strongly shaded with orange, leaving only a triangular white patch on proximal side; the band is 12 mm wide at the outer margin, the distal orange shading into the area of the postdiscal zone, reducing the width of



FIGS 3–6. *Palla*, ♂ genitalia. 3, *P. ussheri ussheri* (Butler) (Cameroun), slide no. R. 334; 4, *P. ussheri interposita* Joicey & Talbot (Uganda), slide no. R. 333; 5, *P. publius* Staudinger (Bipindi), slide no. 335; 6, *P. violinitens* (Crowley) (West Africa), slide no. R. 336. (A. H. B. Rydon del.)

the border and also causing the submarginal orange spots to be obscured. Hind wing, the inner edge of the white band is straighter, but suffused with orange distally, thus reducing the width of the dark border on which the orange spots are less distinct except at the hind border where the ocellus is very conspicuous. Tail at end of vein 4, 11 mm long, rufous but pale tipped. *Underside.* The general appearance of the underside is very similar to that of the nominate female, the main differences are in the reduction of the dark bases; in *interposita* the black lines with white edges are more obvious on a paler ground. The white bars on fore and hind wings more restricted distally, due to the extension of the dark wavy lines proximad. The submarginal dark mark of fore wing more distinct and on the hind wing the ocellus is larger and very conspicuous.

RANGE. Uganda, mainly central and east; less plentiful in western forests. A very worn specimen which is rather intermediate between the nominate subspecies and *interposita* was captured at Lunzuwa Falls, Mbala, Zambia on 8.iv.1969 by Mr F. Scofield (teste M. N. Mitchell, pers. com. 1973).

Palla violinitens (Crowley)

Palla violinitens violinitens (Crowley)

(Pl. 4, figs 26, 27; Text-fig. 6; Map 2)

Philognoma violinitens Crowley, 1890 : 554.
Palla violinitens (Crowley) Staudinger, 1892 : 266.

MALE. Fore wing length 35 mm; shape as in other species of *Palla*. *Upperside.* Fore wing base and distal portion black, crossed by a conspicuous white bar, narrow at costa, 3 mm and widening slightly to the hind margin, strongly edged with blue on proximal side, slightly on outer in 1*a*–1*b*. No other markings. Hind wing brownish at base, this colour extending into the inner fold, at the anal end of which is a whitish mark. Border blacker, separated from the base by a bluish white band sharply defined on inner edge, but merging into rufous orange below cell, which colour extends to the hind margin and along the tail, with a separate orange spot in the black border above the tail. Tail at end of vein 4 orange and pale tipped, 6 mm long. *Underside.* Fore wing base deep chocolate-brown; cell crossed by five black, white-edged, lines. White bar strong and narrow as above, defined by black on inner edge, flanked distally by fine dark lines on a greyish ground, so that the distal part of the wing appears darker than in other species. Hind wing base deep chocolate-brown, white bar narrow, 3 mm at costa, then of even width to above the anal angle, outwardly flanked by the dark wavy lines on a greyish ground. Border of wing with rufescent spots, distinct above and below the tail; ocellus with black spot on an olive ground, conspicuous, shaded with black proximally.

FEMALE. Larger than the male, fore wing length 45 mm, apex more rounded. *Upperside.* Fore wing basal area blackish brown, white band well defined, the distal edge with fine dark lines and so merging into the dark brownish black apex and outer border. The white band at the costa 7 mm wide, gradually expanding to 15 mm on the hind border; the dark border with somewhat angular white spots, that in space 4 small and set in. Hind wing basal area blackish brown extending to inner fold well above anal angle, white band very broad, 15 mm at costa to vein 4, then tapering to inner fold above the hind angle. Border of wing brownish black, merging into the white band by fine dark wavy lines; a row of conspicuous white lunules in the submarginal zone bordered distally with rufous above and below the tail; the ocellus on hind margin conspicuously white-edged proximally, with large central black spot; mark on anal angle paler, carrying two white dots. Tail at vein 4 rufous with a dark edge, tip pale, 10 mm long, but robust with rounded tip. *Underside.* Basal areas of both wings chocolate-brown, with black lines in the cells; outer edge with blackish line defining the broad white band

proximally, and distally set off by fine black wavy lines of increasing density toward the darker border and in the hind wing with a pale ray along 4; the submargin with white lunules edged rufous distally, forming ocelli above and below the tail, that on the hind margin conspicuous with black spot on an olive ground, accentuated proximally by a black line, that on anal angle olive, with two white dots.

RANGE. Ghana to the Central African Republic and Angola, where it intergrades with the next aggregate.

Cline *coniger* (Butler)

(Pl. 4, figs 28–32; Pl. 5, fig. 33)

Charaxes coniger Butler, 1896 : 403.
Charaxes coniger Butler; Gabriel, 1927 : 34.

Usually referred to as merely a form, the name *coniger* Butler is here considered to be applicable to the large aggregate of the species found east of Cameroun. It will be noted that the type male came from Old Calabar and the associated female from 'Congo'.

MALE. Very similar to nominate race in size and coloration. *Upperside*. Forewing differing only in the greater width of the white bar with less strong blue on its proximal side. Hind wing, band also wider in its white upper portion, but the orange portion is more restricted. There is little difference on the underside except a corresponding difference in the width of the white band as noted on the upperside.

FEMALE. In this sex there is a corresponding difference in the width of the bars on the upper and under surfaces to that noted in the males. Whereas in the nominate race the submarginal row of pale spots on upperside of both wings is white, in *coniger* these spots are white or orange.

RANGE. Cameroun, Central African Republic, Congo (Brazzaville) and Zaire.

Palla violinitens bwamba subsp. n.

(Pl. 5, figs 35–37; Map 2)

MALE. Forewing length average 36 mm; shape similar to others of the group except that the hind angle of the forewing is slightly less prominent in 1*b* so that the angle is more rectangular. *Upperside*. Forewing, base and distal portion black, base slightly browner, white bar broader than in nominate race, 6 mm at costa expanding in a slight curve to the hind angle where the bar is 8 mm wide, the inner border more extended proximad and shaded with bluish grey, but reduced at the costa where there is a black line at end of cell. Hind wing, basal area and inner fold brownish black to anal angle where there is a small pale spot at inner margin. Outer border of wing blacker, extending from upper angle to above the tail. White band wider than in nominate race, 10 mm at costa, with a narrow white central line extending to base of vein 4 flanked proximally with greyish blue, less strongly blue distally, the white area ending rather at vein 3, giving way to the rufous-orange which extends to the hind margin and the tail; the ocellus in space 3 conspicuous, that above the tail less so, but the white dots at anal angle distinct though small. The main character is thus the width

and extent of the white bar on the hind wing. *Underside*. Very similar to that of the nominate race but fore wing white bar much broader throughout, the hind wing bar also wider.

FEMALE. Larger than the male, fore wing length 45 mm, shape as in nominate race. *Upperside*. Fore wing, basal dark area as in nominate subspecies, but distal dark border stronger, the arrow-shaped submarginal spots rufous-orange except that at the costa which is white to buffy. Hind wing, white band more defined distally, the outer border dark. The submarginal spots larger and rufous-orange; the ocellus conspicuous. Tail robust, rufous in colour but pale tipped, 10 mm long. *Underside*. Fore wing, very similar to that of the nominate race but the distal portion more tinged with buffy, the fine wavy dark lines commencing more abruptly. The submarginal spots buffy though rather obscured. Hind wing, white band more defined distally by the dark wavy lines commencing more abruptly on the buff-tinged ground. Submarginal spots in the form of ocelli more rufous but less edged with white, but large ocellus at hind margin and anal angle well marked.

Holotype ♂, UGANDA: West Bwamba Valley, v. 1954 (*van Someren*) (BMNH).

Paratypes. UGANDA: Bwamba Valley, vii. 1942 (*van Someren*), 1 ♀ (allotype); Bwamba Valley, 1 ♂ (BMNH).

RANGE. Uganda, Ruwenzori, Bwamba Valley. A transitional form occurs in the Epulu area of Zaire (Pl. 5, fig. 34).

Palla publius Staudinger

Palla publius publius Staudinger

(Pl. 5, figs 38, 39, Text-fig. 5; Map 2)

Palla publius Staudinger, 1892 : 267.

Nearest in general facies to *Palla ussheri* (Butler), but exhibiting constant differences; the females of the two species being totally different.

MALE. Fore wing length 37–38 mm. Shape as in other species of *Palla*. *Upperside*. Fore wing, pattern very similar to that of *P. ussheri*, the white band slightly wider and slightly more curved on distal border. Hind wing, pattern also very similar but white portion of the band more extended, reaching vein 6, joining the rufous-orange rather abruptly and expanding rapidly at an angle and extending to the hind margin, including the whole of the tail. *Underside*. Fore wing, basal area and distal portion of wing darker than in other species, the fine dark lines on the latter, on a more brownish base, the margin of the wing darker. The same remarks apply to the hind wing.

FEMALE. Unlike other species, the female of *publius* resembles somewhat a larger paler edition of the male, having in general a similar pattern above. Fore wing length 45 mm. *Upperside*. Fore wing with an ochreous spot in the subapex in 5 and more obscured spots at the costa. *Underside*. Fore wing, paler than in the male, especially on the outer border where the fine wavy lines are on a brownish grey ground; in addition, there are dark rays on the distal side of the white band, at veins 1*a*–4, and dark lines on the submargin in the curve of the wing. The white bar very similar to that of upperside. Hind wing, white band very distinct, widest at the costa and tapering to above the anal angle; the ground colour of the dark wavy lines is buffy, but with dark patches in 4–5 and costa to 5. The marginal rufous ocelli, edged proximally in white, distinct, especially that in space 3 on the hind margin, showing up clearly on a clayish olive ground, proximally accentuated by a dark line.

RANGE. Ivory Coast, Ghana, Sierra Leone to eastern Nigeria.

Form *rectifascia* Weymer

Palla rectifascia Weymer, 1892 : 91.

This form, in both sexes, only differs from the nominate race, in having on the upperside a straighter fore wing bar, but the white area of the hind wing bar extends further into the orange on the proximal side, reaching vein 5. However, in the female the white bar of the fore wing is broader throughout, the submargin with a row of tawny spots, that in the subapex, whitish. On the hind wing the white upper part of the band is broader and extends further on the proximal side, almost reaching the inner fold where it merges with the orange; the submarginal spots obscure at upper half, but more distinct towards the hind border where the black ocellus is prominent. Underside, very similar to that in the nominate race but dark patches on fore wing stronger, on a paler ground. Hind wing ground colour less buffy but the admarginal ocelli well marked.

Form *moderata* Gaede

(Pl. 6, figs 49, 50)

Palla moderata Gaede, 1916 : 71.

The type of *P. moderata* Gaede cannot be located, and the description was not accompanied by a figure. A translation of the description is as follows.

> Closely related to *P. ussheri* Butler. The white band of the fore wing is slightly narrower; inwards, it has a slight bluish margin. The white band of the hind wing extends from the anterior margin to R_7 and then it becomes brownish. This brown part of the band is considerably narrower than in all *Palla* spp. and does not become broader towards the inner angle, but maintains an even width from the outer margin. The band is separated on the inner angle from the reddish yellow spot that extends from the inner margin to R_7 on the margin. In other species this spot is united to the band. An isolated spot is present in areas 4 and 5, the former exhibiting a white centre. The spot in area 4 in *ussheri* is nearly always united with the band, only in rare cases is it separated. The lower surface of the hind wing is identical with that of *ussheri*. This means that the differences between the two species is not very great, and it is not unlikely that some day transitional specimens will be found. However, it is also impossible to differentiate *publius* Stgr. and *ussheri*, by comparison of the upper surface while the lower surface differs slightly. In spite of that, the remarkable difference of the females confirm that they are separate species.
>
> The female of *moderata* is unknown.
>
> Type male, Dengdeng, N. Kamerun. 3/4/14. Coll. Dr. Milbraed. In addition, one male from Sierra Leone, in collection Staudinger.

It will be noted that these two specimens assigned to *moderata* come from widely separated areas. A third specimen placed under *moderata* in the Rothschild collection (BMNH) has been sent to me by Mr Howarth. It was taken at Kapulumbo, Kasai, western Congo, also far distant from Cameroun. This specimen closely resembles *P. publius* on the upper side, more so than *ussheri*, and suggests that *moderata* Gaede is not a species but a variation of *publius*, occurring here and there within the range of that species.

This specimen does not quite agree with the description of the type in so far as the orange band on the hind wing upperside is concerned, for it widens considerably in its lower portion above the anal angle.

Palla publius centralis subsp. n.

(Pl. 5, fig. 40; Pl. 6, figs 41–45; Map 2)

MALE. Similar in size and shape to the nominate race, but differing in the following characters. *Upperside.* Fore wing, bar is narrower in the region of the costa and the cell end, being 3 mm or even less, but gradually expanding towards, but contracting slightly, at the hind margin, particularly on the outer edge so that there is not a large overlap of the fore wing bar over that of the hind wing. The inner border is less sharply defined due to some greyish blue scaling, and there is often a whitish mark in the cell end. Hind wing, the white area of the bar is widest at the costa, 5 mm decreasing to 2 mm where it encroaches within the commencement of the orange area which expands rapidly to reach the tail on the distal side and the anal angle on the proximal side, the inner side being almost straight. The ocellus on the hind margin is very distinct as are also the two white dots at the anal angle. The tail, though robust, is pointed with rounded tip. *Underside.* Fore wing, very similar to that of the nominate, the white lines crossing the cell are distinct though the basal area is not so dark. The white bar is similar to that of upperside. The fine lines in the postdiscal zone are more distinct on a less dark border. Hind wing, the white bar is narrower, especially at the costal end, and the bar is of almost even width and more curved; otherwise, the pattern follows that of the nominate race.

FEMALE. Here also, it is male-like. Length of fore wing 45 mm. *Upperside.* Differing from the female of the nominate race in having a narrower bar throughout. Forewing, postdiscal row of spots obscured or absent. Hind wing, the white area at the costa is narrower and less extended, but the orange area expands rapidly as a triangle to reach the hind margin including the tail and the anal angle; the ocellus is very distinct. *Underside.* This exhibits similar differences to those noted in the male, but on the hind wing the submarginal ocelli above the tail are not so distinct.

Holotype ♂, CAMEROUN: Johann-Albrechts Hohe, Station Kamerun, 1896 (*L. Conradt*) (BMNH).

Paratypes. CAMEROUN: no further data, 1 ♀ (allotype); Bitye, 2000 ft, Ja River (*G. L. Bates*), 1 ♂; Mamfe, xi. 1956 (*T. H. E. Jackson*), 1 ♂; Bitje, Ja River, 2000 ft, dry season (*G. L. Bates*), 1 ♀. ZAIRE: no further data, 1 ♂. (All BMNH.)

RANGE. Cameroun, Central African Republic, Zaire.

Palla publius kigoma subsp. n.

(Pl. 6, figs 46–48; Map 2)

MALE. Differs from both the nominate race and *p. centralis* by the greater, more even width of the fore wing bar, which is almost parallel sided, especially on the undersurface. The white area of the bar on the hind wing is also wider as is also the orange portion of this band. On the underside, the pattern is strong.

Holotype ♂, TANZANIA: Kigoma, Kabogo, 28.xi.1961 (*Japanese Primate Expedition*) (BMNH).

Paratype. TANZANIA: holotype data (Nat. Mus. Nairobi, Kenya), 1 ♂.

SYSTEMATIC LIST

Palla decius (Cramer)

Palla decius decius (Cramer, 1777). Type-locality: Coast of Guinea.

f. *sagittarius* Rousseau-Decelle, 1934. Type-locality: Zaire, Kasai district. Range: Guinea, Sierra Leone, Congo (Brazzaville), N. Angola.

Palla ussheri (Butler)

Palla ussheri ussheri (Butler, 1870). Type-locality: Gold Coast [Ghana].
f. *ferruginea* Schultze, 1914. Type-locality: Cameroun.
Range: Sierra Leone to W. Nigeria, west of Cross River.
♀ f. *dobelli* Hall, 1919. Type-locality: Cameroun, Bitje, Ja River.
Range: Cameroun, Central African Republic, Congo (Brazzaville).
ussheri interposita Joicey & Talbot, 1925. Type-locality: Uganda, Mabira Forest.
Range: Uganda, from west to east but mainly in central forests; Zambia.

Palla violinitens (Crowley)

Palla violinitens violinitens (Crowley, 1890). Type-locality: [Ghana] Accra.
Range: Ghana to Central African Republic.
violinitens cline *coniger* (Butler, 1896). Type-locality: Old Calabar (♂), Zaire (♀).
Range: Cameroun, Central African Republic, Congo (Brazzaville), Kasai and central Zaire.
violinitens bwamba subsp. n. Type-locality: Uganda, Bwamba Valley.
Range: Uganda, west of Ruwenzori, Bwamba Valley with variation in E. Zaire in the Epulu area.

Palla publius Staudinger

Palla publius publius Staudinger, 1892. Type-locality: Sierra Leone.
f. *rectifascia* Weymer, 1892. Type-locality: Ghana.
Range: Ivory Coast, Ghana, Sierra Leone to E. Nigeria.
f. *moderata* Gaede, 1915. Type-locality: Cameroun.
Range: Sierra Leone, Cameroun, Zaire.
publius centralis subsp. n. Type-locality: Cameroun, Bitje.
Range: Cameroun, Central African Republic and Zaire.
publius kigoma subsp. n. Type-locality: Tanzania, Kigoma.
Range: Tanzania. Only known from the Kigoma district north-east of Lake Tanganyika.

THE *EUXANTHE* COMPLEX

The genus *Euxanthe* was created by Hübner in 1816 (1819), without a generic description. The type-species was cited as *Papilio eurinome* Cramer (1775–6).

The genus was subdivided by Aurivillius (1898 : 220) when he created the subgenus *Hypomelaena* (type-species *Godartia trajanus* Ward, 1871). The distinguishing characters are that in *Euxanthe* the fore wing cell is obtusely rounded and elongated at its distal end, the hind wing cell is open, while in *Hypomelaena* the fore wing cell is almost triangular and ends abruptly and the hind wing cell is closed.

A great deal of reliance is placed on wing venation for distinguishing genera, and rightly so, but, in my opinion, the early stages are also of great importance. Wing shape is also of significance in 'grouping' and, although the shape of *Charaxes* and *Euxanthe* differ considerably, evidence is afforded by the ova, larvae and pupae which show that *Euxanthe* is allied to *Charaxes*, but forms a compact group. I therefore support the proposal of Rydon (1971 : 230) that a sub-family Euxanthinae be erected for the group. For comparative figures and descriptions of the early stages vide van Someren & van Someren (1926 : 354) and Rydon (1971). (See Text-figs 7–9.)

Euxanthe (Euxanthe) eurinome (Cramer)

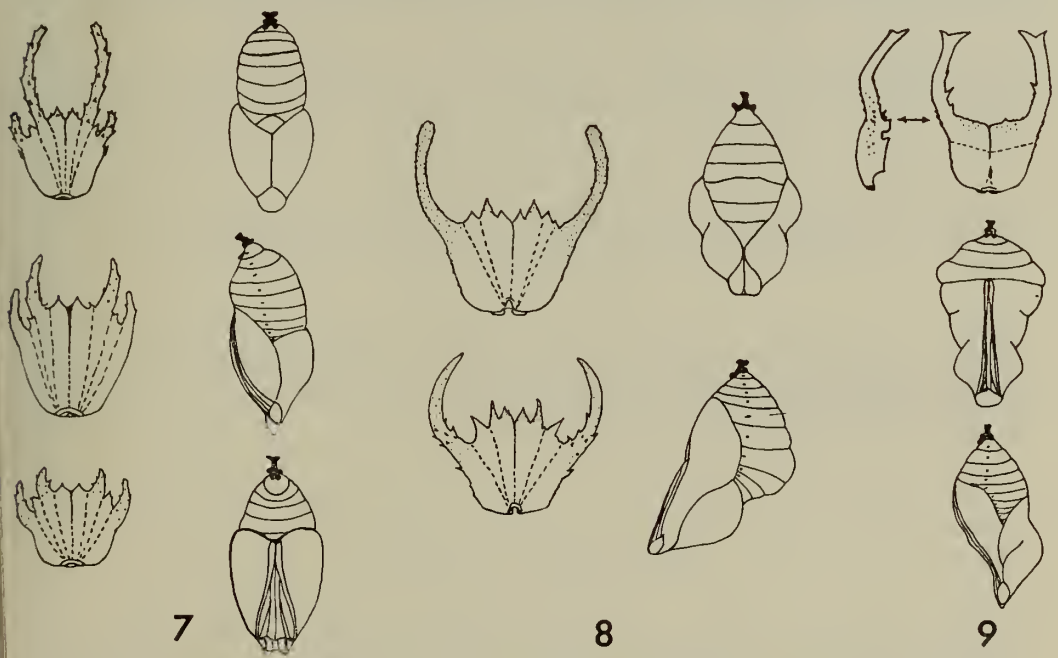
Euxanthe (Euxanthe) eurinome eurinome (Cramer)

(Pl. 7, figs 51–54; Map 3)

Papilio Eques Achivus eurinome Cramer, 1775 : 109.
Papilio Festivus eurinome Cramer; Fabricius, 1793.
Euxanthe eurinome (Cramer) Hübner, 1816 : 39.
Euxanthe eurinome (Cramer); Kirby, 1871 : 228

For full references vide Stichel, 1939.

MALE. Fore wing length 42–44 m. Shape, wings rounded, costa and outer margin of wing curved, apex rounded, or very slightly pointed. *Upperside.* Fore wing, ground colour black



FIGS 7–9. Early stages of (7) *Charaxes*, (8) *Euxanthe*, (9) *Palla*. (R. Smiles del. after van Someren.)

slightly browner at base and costa. Pattern consisting of four rows of spots, all slightly bluish green, the intensity of the colour depending on the direction of the light upon them; row 1, mark towards end of cell small and elongate with a small dot at proximal end, an elongate ovoid mark in space 2, followed by two narrow elongate marks in space 1b and a smaller mark in 1a placed more proximad; row 2, elongate marks in spaces 3–6, that in 5 a narrow streak; row 3, with four smaller elongate spots; submarginal spots smaller and whitish, rounded, from subapex to space 3, the mark in 2 more angular and set in, two spots in 1b. Hind wing, ground colour black, the basal area with a large bluish green patch occupying the cell and space below and bases of 5–6, the marks in the latter separated by black, so that the outer border is irregular; postdiscal line with conspicuous row of ovoid bluish green spots, largest at costal end, smaller in 4–5, then larger in 2–3; the spots on the inner fold small; the marginal row of spots more rounded, the spots decreasing in size from upper angle, double spots at anal angle; edge with small white marks opposite each spot. *Underside.* Fore wing, ground colour dull black, more brownish along the costa to apex, and the outer margin to hind angle. Pattern of spots as upperside but paler, but cell and base of costa with whitish spots; the submarginal spots in spaces 1b and 2 more angled and larger than above. Hind wing, ground colour dull black shading to brownish at base of costa and upper part of inner fold; basal light area larger than above, the whitish extending into the inner fold from 1a–1c; the postdiscal row of pale spots larger and more silvery white, and in addition a series of small white spots in the interspaces.

FEMALE. Fore wing length 45–51 mm; shape less rounded than in the male, the outer border less outwardly curved. *Upperside.* Fore wing, pattern of pale spots arranged as in the male, but all spots larger and white, with just the slightest tinge of green. The mark in the cell large and elongate, sometimes filling the whole of the cell, but usually with an irregular upper edge; the spot in space 2 large, and extending basad; the mark in 3 in the mid row large, rounded or ovoid, often extended basad; the submarginal spots larger than in the male. Hind wing, ground colour black, browner along the costa and along the distal border of the large white area in the disc of the wing which extends into the inner border to above the hind angle, the outer edge slightly dyslegnic, represented at the costa by an oval free spot, white in colour. The postdiscal row of more rounded spots, white and distinct and, unlike the male, there is a double row of white spots between the postdiscal row and the small white spots on the admargin. *Underside.* Fore wing ground colour, dull black, the pattern of white spots more or less as upperside, the cell mark often with a black spot in subbase. Hind wing ground colour dull brownish black, the border slightly blacker; the basal white area more rayed by blacker veins, but not extending so far down on the inner fold; the postdiscal row of white spots larger and more rounded than upperside, the intermediate submarginal white spots as upperside but larger and extending from costa to hind margin at the angle; the submarginal white spots larger and more elongate; the edge with a narrow white fringe opposite these spots.

RANGE. The nominate race extends from Sierra Leone, Ivory Coast and Ghana to Nigeria; it also occurs on Fernando Po. There is reason to believe that nominate *eurinome* intergrades with the more eastern race *ansellica* in the region of Cameroun, the Central African Republic and Zaire.

♀ form ***johnsoni*** Howarth

Euxanthe eurinome Cramer ♀ form *johnsoni* Howarth, 1969 : 154, pl. 2 fig. 5.

This extreme female form is distinguished by the enlargement and coalescing of all the white markings basad of the submarginal spots into one large area on the upper and underside of the fore wings.

Euxanthe (Euxanthe) eurinome ansellica (Butler)

(Pl. 7, figs 55–58; Pl. 8, fig. 59–63; Maps 1, 3)

Godartia ansellica Butler, 1870 : 525.
Euxanthe eurinome ansellica var. *radiata* van Someren & Rogers, 1927 : 65.

MALE. Fore wing length 41–45 mm. Shape as in the nominate race. *Upperside.* Fore wing, pattern and colour of bluish green spots very similar, the spot in space 3 set rather more distad, those in 1b of more equal length; the spot in the cell larger and more irregular on upper border; the general ground colour similar to that of the nominate race. Hind wing ground colour as in *eurinome eurinome*, the general pattern very similar, the second spot in space 5 of the discal row often missing. Basal patch often broken up by black and the whole patch is more limited on the proximal side; the spots in the discal line and admargin as in the nominate race. *Underside.* Forewing, ground colour slightly more brownish than in nominate race; the pattern also very similar, but submarginal row of spots on the hind wing stronger and more developed.

FEMALE. Larger than the male, fore wing length 54–55 mm; shape slightly more convex on outer border. *Upperside.* Fore wing; this sex exhibits a marked departure from the pattern of the nominate race, the pale markings on the fore wing are smaller, thus the spots are more scattered, and all are pale bluish white. Hind wing, the basal patch is less solid and is separated into pale bluish white rays by the black-scaled veins; however, the submarginal and admarginal bluish white spots are more developed. *Underside.* Ground colour browner than in nominate race, the pale spotting, though larger than on upperside and pale bluish in colour, is similarly broken up. The colour of the abdomen is darker dorsally.

RANGE. Northern Angola, S. Cameroun, Central African Republic, central and southern Zaire including Katanga; extending eastwards to west and central Uganda.

Specimens from eastern Zaire have received the name *f. burgeoni* Le Cerf, 1923, the type-locality being Kindu. This form was placed under *eurinome eurinome* by Peters (1952), which is incorrect (Pl. 8, fig. 64).

Euxanthe (Euxanthe) eurinome celadon Le Cerf

(Pl. 8, fig. 65; Map 3)

Euxanthe eurinome celadon Le Cerf, 1923 : 363.

There has been some confusion in the past as to the exact locality of the race *celadon* Le Cerf. Specimens from the Mt Elgon area having been placed under it because of their small size, compared with *ansellica*. In order to clarify the position, I wrote to Dr Viette of the Muséum National d'Histoire Naturelle, Paris, and asked him to kindly check on the locality cited on the label attached to the type-specimen. This label gives the locality as Gabun! Bryk (1939) gives the type locality as 'Congo' without exact location. Since the race *ansellica* Butler occurs to the immediate east of Gabun, extending east through the Congo to Uganda, it appears obvious that the Elgon insect cannot be placed to *celadon*.

Unfortunately, I have no topotypical specimen of *celedon* on which to base a personal opinion as to its validity; I accordingly quote the original description given by Le Cerf.

Euxanthe eurinome Cr. s. sp. **celadon** nova.

♂.–Aire basale verte des ailes inférieures fortement réduite par l'envahissement du fond noir qui couvre largement les bords de la cellule et les nervures; la tache entre 1^b et la cellule n'atteint pas la base de la nervure 2; celle de l'intervalle 3 manque ou est rudimentaire; celles des intervalles 6 et 7 sont en majeure partie oblitérées par un semis noir.

♀. – Tous les dessins d'un bleu verdâtre clair au lieu de blanc pur; bande terminale noirâtre des ailes inférieures large, remplissant la base des nervures 2–3; bords de la cellule et nervures écaillés de noir; entre les nervures 1^b et 2, un large trait noir court sur le pli jusqu'a 1 centimètre de la base de l'aile.

Types : ♂ (H.T.), Gabon, ex M. Lebaudy, 1909. – 1 ♂, 1 ♀, Tchibanga, Gabon, 1908, ex G. Le Testu. – 1 ♂, 1 ♀, Landana, Congo portugais, 1882; 1 ♀, Thoumby, Congo belge, 1883, ex L. Petit < coll. E. Boullet, Coll. Muséum National de Paris.

RANGE. Gabon.

Euxanthe (*Euxanthe*) *eurinome elgonae* subsp. n.

(Pl. 9, figs 66–73; Maps 1, 3)

MALE. Fore wing length 40–42 mm, thus smaller than the nominate race and *ansellica* of the Congo and central Uganda. The chief characters of the race *elgonae* are its considerably smaller size compared with *ansellica*, but the pattern of the male on the upper side is more like that of nominate *eurinome*, although the underside ground colour is quite different. The female of *elgonae* is more like that of the nominate race regarding the solidity of the hind wing patch, which is white, but the fore wing spots are blue as in *ansellica*. In detail, the differences compared with *ansellica* are as follows. *Upperside*. Fore wing, cell mark is divided into two, one at subbase and a double spot beyond; though somewhat variable, the postdiscal and marginal spots are more uniform in size; hind wing, the basal green patch is smaller and more consolidated distally, less broken up by dark rays. The postdiscal row of spots more rounded and uniform in size; the submarginal row of small spots better developed. *Underside*. Fore wing ground colour, brownish along the costa and the outer border. Hind wing, more brownish along the costa.

FEMALE. Fore wing length 45–50 mm. *Upperside*. Fore wing, pattern of pale spots bluish to whitish. The hind wing patch is white and more consolidated, its outer border strongly indented in spaces 2–3. *Underside*. Hind wing, ground colour very similar to that of *ansellica*, but pattern reflecting the differences noted on the upperside.

Holotype ♂, KENYA: east Elgon area, Trans. Nzoia district (BMNH).

Paratypes. KENYA: holotype data, 1 ♀ (allotype) (BMNH), 1 ♂, 1 ♀; Mara District, Gori River forest, 2 ♂. UGANDA: W. Madi, Metu forest, 1 ♂.

RANGE. North-west Kenya to the east and south-east of Mt Elgon, extending north into the Suk country. Similar specimens have been taken in Uganda in the West Madi district at Metu. Its distribution coincides with that of its chief food plant, Mbambakofi, *Afzelia africana* Smith (Caesalpinaceae) on which it has been bred.

Euxanthe (*Euxanthe*) *eurinome birbirica* Ungemach

(Map 3)

Euxanthe eurinome birbirica Ungemach, 1932 : 52.

As I have no specimen of this subspecies I quote below the original description.

82. **Euxanthe eurinome *birbirica*** s.-sp. nova.

La race abyssine de ce bel insecte se rapproche de la race congolaise *ansellica* Btlr. par la réduction de l'aire basale claire de l'aile postérieure et par l'irrégularité de la série de taches submarginales de l'aile antérieure. Mais les taches submarginales de l'aile post. sont de la taille de celle d'*eurinome* Cr. et presque rondes. Toutes les taches claires de l'aile ant. sont beaucoup plus réduites que dans les deux races connues; en particulier, la grande tache cellulaire se divise en deux petites taches, une triangulaire à la base, un autre allongée et bilobée au delà du milieu. La tache de l'intervalle 1^a est absente ou minuscule.

Chez la femelle, les taches de l'aile ant. sont blanc bleuté, la base de l'aile post. blanc pur et les taches discales vert très pâle. Mais surtout, le fond de l'aile post. est brun rouge au lieu de noir, presque de la même teinte que le dessous du ♂. L'extrémité de l'intervalle 1^b est même brun clair. Les arceaux noirs de la bordure envoient un prolongement noir jusqu'aux taches discales. Il n'y a que deux discales dans l'intervalle 1^c, dans les deux sex. Envergure de la ♀, 97 mm. – Type dans ma collection. (Youbdo, 13 nov. 26).

J'ai capturé de cette belle espèce trois ♂♂ et une ♀ à Youbdo; tous, sauf un ♂, sur un arbre blessé dont la sève en fermentation attirait de nombreux insectes et surtout une grande quantité de *Charaxes*.

Euxanthe (Euxanthe) crossleyi (Ward)

Euxanthe (Euxanthe) crossleyi crossleyi (Ward)

(Pl. 10, figs 74–80; Map 3)

Godartia crossleyi Ward, 1871 : 36.
Euxanthe crossleyi (Ward) Kirby, 1877 : 740.
Euxanthe crossleyi f. *niepelti* Bryk, 1939 : 632.

Male. Fore wing length 45 mm; shape, costa curved, apex only slightly pointed, outer margin outwardly curved. Hind wing rounded, no anal projection. *Upperside*. Fore wing ground colour black; pale markings in four rows, all pale greenish cream, cell almost entirely filled by a large black mark but not reaching the base, sometimes with a black dot in mid-subcostal area, followed by a large rather triangular mark in space 2, followed by narrow elongate marks in 1b–1a; long narrow marks in subbases of 4–6, mark in 3 at a slight angle to those above and set in a little; postdiscal row of spots smaller, in a row from 4–7, linear; submargin with full series of more rounded spots from 1b to subapex in 7, the spot in 2 largest and set in a little, mark in 1b double; base of fore wing costa with a pale line, sometimes tinged with rufous basally. Hind wing, ground colour black, disc of wing filled by a large greenish cream patch separated up into rays by black veins, the subcostal mark in 7 very long and extending distad to fuse with the postdiscal row of large ovoid pale spots, with marks below also fusing to a lesser degree; represented on the inner fold by a club-shaped whitish mark which is freckled with black scales. Submarginal line with a row of double half-moon spots divided by black; admargin with pale linear marks in interspaces. *Underside*. Fore wing ground colour black, slightly paler along the costa, apex and outer border. Pattern of pale spots arranged as upperside but paler. Hind wing, base of costa and 6 with a rufous patch with two white dots; rest of the wing taken up by the paler greenish cream enlarged patch as on upperside, divided up by black veins, the inner fold greenish cream divided longitudinally by black veins, not all black as upperside.

Female. Larger than the male, fore wing length 58–60 mm. Shape, outer margin less outwardly curved than in the male. *Upperside*. Fore wing, basal part of wing taken up almost entirely by the pattern of creamy marks which are only slightly tinged greenish in the distal part of the wing. Black triangular area at base of cell, extending into bases of spaces 1b–1a. Cell itself entirely creamy; the discal zone of the wing with an enlarged creamy area divided up by black veins; the postdiscal series of spots from 4 to subcosta in 7, much larger

than in the male, and creamy in colour; the submarginal spots arranged as in the male but larger and more angular. Base of costa with a creamy line. Hind wing, extreme base black, bulk of wing filled with the creamy rayed pattern, which is more extensive than in the male, the ends of the rays more fused with the postdiscal rounded creamy spots. The inner fold is creamy, divided by black veins; the submarginal and admarginal creamy spots arranged as in the male but larger. *Underside.* Fore wing, ground colour towards the apex and outer border greyish, darkening toward the hind angle; the black patch at lower base of cell and base of 1b strong. The bulk of the wing filled by an enlarged pattern of creamy marks arranged as on upperside; the postdiscal spots more or less fusing with the discal spots. Hind wing, ground colour more greyish, the whole area taken up by the extended pattern of creamy rays which fill it from the base to the submarginal zone, where the row of pale spots is strongly represented as are the admarginal triangular spots. The extreme base of the wing is shaded with rufous.

RANGE. The nominate race occurs in the Cameroun, Zaire, the Central African Republic and Mwinilunga, Zambia.

Euxanthe (*Euxanthe*) *crossleyi magnifica* Rebel

(Pl. 12, figs 90–92; Maps 1, 3)

Euxanthe crossleyi magnifica Rebel, 1914 : 252.
Euxanthe crossleyi intermedia Joicey & Talbot, 1921 : 75.

MALE. Fore wing length 40–42 mm; shape as in the nominate race. *Upperside.* Fore wing differs from the more western *crossleyi crossleyi* by its paler coloured pattern, the greenish tinge to the creamy marks being mostly on the distal half of the wing. The general pattern very similar to that in the nominate race but more extended; ground colour black. Base of fore wing costa with a marked creamy stripe up to mid point; cell filled entirely with creamy yellow except for a streak at lower base adjoining the black spot at the base of the wing which fills the bases of spaces 1b–3, as in the nominate race, but more extended, that in 3 fusing with the spot in the discal row; the marks in the discal row larger and more extended; the four postdiscal spots larger as also are the submarginal spots, of which that in 2 is slightly set in and larger, that in 1b double. Hind wing, pattern as in the nominate race but creamy, the rays of the discal area more even and elongate, the fusion with the spots in the postdiscal row more complete; the spots in the submarginal line larger and creamy, as also are the admarginal ones. The inner fold of the wing creamy buff, divided by black veins. *Underside.* Fore wing ground colour shading to greyish on the apex and outer border; the heavy black mark at the base strong. The general pattern follows that of upperside but is paler in colour. The hind wing pattern is essentially that of upperside, divided by black veins. The ground colour on the border is more greyish; the submarginal and admarginal spots as upperside but paler.

FEMALE. Larger than the male, but with similar pattern and all spots paler.

RANGE. Eastern Zaire, mainly in the Irumu-Beni-Ituri areas. It is of interest to note that this pale race occurs between the darker western and the strongly marked race of Uganda.

Euxanthe (*Euxanthe*) *crossleyi ansorgei* Rothschild & Jordan.

(Pl. 11, figs 81–86; Pl. 12, figs 87–93; Maps 1, 3)

Euxanthe crossleyi ansorgei Rothschild & Jordan, 1903 : 333.
Euxanthe crossleyi ansorgei f. *babbingtoni* Stoneham, 1943 : 46.

Hitherto, all representatives of the species *crossleyi* from Uganda and Kenya

have been considered to be a homogeneous entity. After intensive study they may be divided into three groups.

Group A. The type of *ansorgei* came from the Nandi forest. Both sexes are characterised by the smallness of the spots in the fore wing and the restricted hind wing patch, and the large postdiscal spots, but small admarginal ones. The streak on the hind margin in space 1a is short. Topotypical examples: Pl. 11, fig. 86; Pl. 12, fig. 88.

Group B. The aggregate from the low-lying humid swamp forests of Katera, on the western shores of Lake Victoria, in the Masaka district, differ by having a large spot in the fore wing cell, and larger marks in the discal line, but smaller spots in the upper postdiscal row. The streak on the inner margin in 1a is much longer. On the hind wing, the discal patch is larger, being extended distally, and also on the inner fold; the submarginal spots larger. These general differences apply equally to the females. Specimens from central Uganda, Mawakota area, come within this group (Pl. 11, figs 81–83). (See Map 1.)

Examples from the Kigoma district to the north-east of Lake Tanganyika in Tanzania, of which I have insufficient material, approach the Katera aggregate (B) but differ appreciably; the fore wing spots are strongly greenish (Pl. 11, fig. 84).

Group C. Moving further west to the forests of Kayonza in the Kigezi district of Uganda, we note that males differ from either of the above groups; the base of the fore wing costa is rufous, extending as a streak at the base of the cell; the mark within the cell is larger than in those in group A, and more broken up and irregular on the upper edge than in those in group B. The discal row of spots as in group B, thus larger than in group A; the postdiscal spots as in B but limited to three spots. The hind wing patch intermediate between that of A and B, but the postdiscal row of spots large as in A. The submarginal spots are small, but the admarginals are large and reach the margin. Females correspond in a like manner (Pl. 11, fig. 85; Pl. 12, fig. 87). (See Map 1.)

These aggregates therefore exhibit characters tending toward the two well marked races *magnifica* and *ansorgei*, yet are sufficiently distinct from either and between themselves, as almost to warrant recognition as subspecies.

Euxanthe* (*Euxanthe*) *crossleyi claudiae Rousseau-Decelle

(Map 3)

Euxanthe crossleyi claudiae Rousseau-Decelle, 1934 : 228.

No specimens available for a personal assessment.

Euxanthe* (*Euxanthe*) *wakefieldi (Ward)

(Pl. 13, figs 94–100, Text-fig. 1; Map 3)

Godartia wakefieldi Ward, 1873 : 152.
Euxanthe wakefieldi (Ward) Kirby, 1877 : 740.
Euxanthe wakefieldi f. *rubiginea* Le Cerf, 1923 : 363.

Male. Fore wing length 40–43 mm. Shape, fore wing costa strongly curved, apex bluntly pointed, outer margin of wing outwardly curved. Hing wing rounded, margin slightly

undulating. *Upperside.* Fore wing, ground colour black, very slightly brownish at base and along the costa. Pattern of greenish spots strong but somewhat restricted; a large ovoid spot toward the end of the cell and occasionally a spot at upper subbase; discal row of greenish spots of varying shape as follows: an ovoid subcostal spot followed by a small streak in space 5, a longer streak in 4, the marks in 3–2 much larger, the proximal ends extended towards the cell, the distal ends incised or oblique, the double mark in 1b projecting distally towards the hind angle, a small linear mark in 1a. All these marks are satin-green, but appear satin-white in oblique view. The postdiscal row of marks limited to three large ones in the subapex in 4–6 with an occasional small dot in subcosta; submarginal spots variable, spots in 2–3 always present, those in 5–6 smaller, often obscured, the mark in 1b usually absent. Hind wing, ground colour black, slightly brownish at base and along inner fold. Discal green-white patch, sometimes satin-white according to light, somewhat restricted, divided on distal border by black veins. Postdiscal row of rounded spots complete, decreasing in size from subcosta to the double spot in the hind angle; submarginal spots mainly on angle, but obscured beyond; admarginal spots small, limited in number or obscured. An occasional variant has all the spots very pale, with little or no greenish tinge, so that the pattern appears white. *Underside.* Fore wing, ground colour blackish in areas 1a–3, shading to dull rufescent brown on the costa, apex and outer border. The pattern of marks as upperside, paler, and slightly larger; the spot at the base of the cell strongly marked. Hind wing, ground colour rufescent brown, the pattern as on upperside but spots larger, the patch in the disc of the wing extended into the inner fold; an additional mark on the costa, and two white dots at its base. The postdiscal and submarginal spots more complete and distinct than on upperside and whiter in colour.

Female. Larger than the male, fore wing length 50–52 mm. Shape of fore wing more elongate than that of male, the outer margin slightly incurved at 2–3. *Upperside.* Fore wing ground colour jet black; pattern of spots in the disc of the wing similar to that of the male, but all marks larger and pure white, occasionally with a slight bluish tinge to cell mark and subapical spots which are large in spaces 4–6, with an occasional dot in 7. Submarginal spots limited to 2–3. Hind wing, costal area and outer border jet black, the disc filled by a somewhat rounded white area which extends into the inner fold, the upper part of area clear-cut, the lower border more dyslegnic due to the intrusion of blackish scaling; the white spots in the discal and submarginal rows complete and clear, those on the admargin small but distinct. *Underside.* Fore wing, ground colour mostly dull blackish brown along the costa and apical region. Pattern as upperside but slightly enlarged; the cell with a basal white spot. Hind wing ground colour brownish, the large discal patch clear-cut, but divided by black veins; postdiscal and submarginal rows of white spots complete. The edge of the wing with slight white fringe between veins.

The chief food plant is Mbambakofi, *Afzelia cuanzensis* Welw. (Caesalpinaceae). For an account of the early stages vide van Someren (1935 : 172).

Range. Coastal forests of Kenya and Tanzania, including the islands of Pemba and Zanzibar, extending to Mozambique as far south as Delagoa Bay and inland as far as Mbala (formerly Abercorn), Zambia and has been seen by Mr F. Schofield in the lower Luangwa Valley (teste M. N. Mitchell, pers. comm. 1973).

Euxanthe (*Euxanthe*) *madagascariensis* (Lucas)

(Pl. 13, fig. 101; Pl. 14, fig. 102; Map 3)

Godartia madagascariensis Lucas, 1842 : 299.
Anthora amakosa Doubleday, *in* Westwood, Doubleday & Hewitson, 1850 : 283.
Euxanthe madagascariensis (Lucas) Kirby, 1871 : 228.

Most closely allied to the continental species *Euxanthe wakefieldi* (Ward) of eastern Africa, but pattern of light greenish spots more limited.

MALE. Fore wing length 40–42 mm; shape similar to that of other *Euxanthe* species but apex pointed. *Upperside*. Fore wing, ground colour black, pattern as follows: two rectangular greenish spots in distal half of cell, followed by a broad diagonal band of elongate marks in the discal line, extending from the subcosta towards, but not reaching, the hind angle, the spot in space 1b the smallest. The submarginal row of small greenish spots of diminishing size extends from the subcosta to 1b. Hind wing, ground colour black; pattern limited to a conspicuous greenish white area occupying the distal half of the cell and the bases of cellules above, the patch appearing white in oblique light. Postdiscal row of large greenish spots decreasing in size from subcosta to 3. *Underside*. Fore wing, ground colour brownish, darker in hinder portion. Pattern as upperside, but spots larger. Hind wing pattern much as upperside but with a few additional white spots at base and on the inner fold; postdiscal spots arranged as upperside but larger and extending towards the inner margin; submarginal spots complete, but admarginal spots limited to two or three in the mid-margin.

FEMALE. Larger than the male and slightly different in shape, the outer margin of the fore wing less curved outwardly. *Upperside*. Pattern more or less as in the male, but all spots white. The broad white discal area on the hind wing very large, extending from near the base to well beyond the middle and covering the bases of cellules 2–6. Postdiscal spots and those on submargin as in the male but all are white. A cinnamon-brown area at the anal angle. *Underside*. Fore wing base black, shading to chestnut on the outer border and apex, the brown colour extending along the costa. White markings as upperside, but enlarged; the spots on the submargin ringed in black, especially distally. Hind wing, ground colour on costa and border chestnut-brown; two white spots at base of costa; discal white patch as on upperside but outer margin more irregular; postdiscal white spots as above; an additional row of small white spots present in the submarginal line and larger spots on the admargin in the interspaces.

RANGE. Confined to the island of Madagascar.

Euxanthe (*Hypomelaena*) *trajanus* (Ward)

Euxanthe (*Hypomelaena*) *trajanus trajanus* (Ward)

(Pl. 14, figs 103, 104)

Godartia trajanus Ward, 1871 : 36.
Euxanthe trajanus (Ward) Kirby, 1877 : 740.
Euxanthe schatzi Staudinger, *in* Staudinger & Schatz 1885 : pl. 48.

MALE. Fore wing length 45–46 mm. Shape, costa curved, apex rounded, outer margin outwardly curved; hind wing rounded. Because of the rounded apex, the fore wing appears more elongate than in other species of *Euxanthe*. *Upperside*. Fore wing base, the cell and base of space 1b conspicously rufous-chestnut. Distal portion of wing black, with three rows of light marks, the discal row pale yellowish white, commencing with a large mark at end of cell, the distal end cut out to accommodate the oval mark at the base of 4, an angular mark fills the base of 3, followed by an elongate mark in 2, extending distad, a smaller triangular mark in 1b with a smaller elongate mark below; 1a with a long white streak extending from base to just beyond the mid-point. Postdiscal series of large white spots, the three upper ones ovoid and large, the three lower more rounded, sometimes double at the hind angle, the lower spot very small; the subapex has two or three white spots diminishing in size, but occasionally present in 4 as a mere dot. Hind wing, ground colour black, the disc of the wing with a somewhat restricted greyish white patch, clearly defined on its upper border, but dyslegnic on the outer, and more so on lower border toward the inner fold. The wing is otherwise immaculate

except for a series of small white dots on the admargin. The upperside of the abdomen is black. *Underside.* Fore wing, ground colour, matt black, base rufous-chestnut as on upperside; pattern of spots similar to that of upperside but subapical spots absent. Hind wing, ground colour matt black with slight brownish tinge, immaculate except for a minute white dot on the costa and mid point.

Female. *Upperside.* Fore wing, somewhat similar in pattern to that of male, but mark in cell reduced to one small spot at subcosta and a spot in the lower apical region connecting up with the larger discal spot in the white band, which is very similar to that of the male but the mark at base of 4 is absent; the postdiscal row of spots like that of the male but spots larger; subapical spots limited to two. Hind wing, pattern mostly taken up by the large white area which extends from the inner fold, bordered distally by the black border which is slightly brownish at the hind angle. Admarginal row of white spots most marked in the curve of the wing. *Underside.* Fore wing, ground colour as on upperside, but black less intense and inclining to brownish at apex and on outer border. Base, chestnut area as on upperside; the discal white band as on upperside, but mark in cell increased in size costad, with an additional white spot beyond. Hind margin of wing with a short white streak. Hind wing, white area as on upperside but rayed by black veins and black lines in interspaces which run out to the margin, the surrounding ground colour brownish with black rays. Submarginal and admarginal spots as on upperside.

Range. The nominate race is restricted to Cameroun and the countries bordering on the west of the Congo River.

Euxanthe (Hypomelaena) trajanus vansomereni Poulton

(Pl. 14 figs 105–107; Pl. 15, figs 108, 109)

Euxanthe trajanus vansomereni Poulton, *in* Eltringham, Poulton, Riley & Talbot, 1929 : 476.

Male. Fore wing length 47–48 mm; shape, costa curved, apex blunt, outer margin outwardly curved; hind wing rounded. *Upperside.* Fore wing, general colour and pattern very similar to that of the nominate race from Cameroun, but rufous area of cell and basal area of space 2 more extended distad, reducing the width of the yellow bar at end of cell and the other component yellow marks slightly reduced; the postdiscal white spots slightly larger; the submarginal spots as in the nominate race. The pale streak along the hind margin slightly longer. Hind wing, bluish grey discal area more extended proximally and distally and also towards the hind border, thus reducing the width of the black border of the wing where the submarginal white, double spots are larger and more distinct. *Underside.* Fore wing, ground colour not so black, more brownish; the pattern as upperside. Hind wing, ground colour more brownish so that the black rays show up more distinctly. The white dot at costa absent.

Female. Fore wing length 60 mm. Shape as in nominate race. *Upperside.* Fore wing, pattern exhibits the same characters as noted for the male, the chestnut area in the cell is more developed, but the white band reduced in width, especially in space 3; the pale streak along the hind margin is narrower and tapering at both ends. The postdiscal white spots are more elongate, those toward the border in 1b–3 smaller. Hind wing, discal patch creamy not white, more restricted on distal border which is straighter, not curved and does not extend so far down the inner fold; the black border is thus wider, and the two rows of white spots larger, especially those on the submargin. *Underside.* Fore wing, less black than in nominate race; between the white bars, more brownish. The basal chestnut more extended, but the discal white bar narrower; the postdiscal white spots more elongate. There is a double row of white spots in the apex. Hind wing, ground colour as in nominate race, black rays equally distinct and the distal border of the white patch straighter, as upperside; the two rows of white spots in the border larger and more developed, especially those on the admargin.

RANGE. Uganda, mostly in the central forests, extending east to the Mabira Forest. Specimens from Beni-Irumu, eastern Zaire, appear to be transitional, but the material available to me is poor (Pl. 14, fig. 105).

Euxanthe (*Hypomelaena*) *trajanus gabonicus* Le Cerf

(Pl. 15, figs 110, 111)

Euxanthe trajanus gabonicus Le Cerf, 1923 : 362.
Euxanthe trajanus gabonicus f. *depuncta* Le Cerf, 1923 : 362.

This subspecies is considered to be a synonym of nominate *trajanus* by the BMNH but I have insufficient material on which to base a personal opinion.

RANGE. Gabon, Ogowe River.

Euxanthe (*Hypomelaena*) *trajanus antonius* Rousseau-Decelle

(Pl. 15, fig. 112)

Euxanthe trajanus antonius Rousseau-Decelle, 1930 : 43.

Through the kindness of Major Grahame, I am able to give a figure of a paratype specimen, ex coll. Rousseau-Decelle. It will be noted that the fore wing pattern is nearest to that of examples from the eastern Congo at Beni-Irumu, the chief differences being the more limited extent of the chestnut area in the cell, and the greater width of the creamy mark beyond; in these respects, the Katanga insect resembles the nominate *trajanus*. The hind wing greyish patch is more rounded, less angled on the distal side.

RANGE. Southern Zaire (Katanga, Kafakumba).

Euxanthe (*Hypomelaena*) *trajanus nigeriae* subsp. n.

(Pl. 15, figs 113, 114; Pl. 16, figs 115, 116)

MALE. Fore wing length 43–44 mm; shape as in other races of *trajanus*. *Upperside*. Fore wing, the chestnut area in the cell extends slightly into space 1b; the creamy patch beyond in the cell end is separated from the chestnut by a black triangle, the rest of the creamy marks restricted in size; the whitish streak on the inner margin well developed; the white spots in the postdiscal line, bold; the subapical white spots, four in number, the lowest a dot. Hind wing, discal greyish area very restricted, rounded on outer border and merging with the inner fold; the black border is thus wide; the submarginal white dots small but distinct. For arrangement of pattern on underside vide Pl. 15, figs 113, 114.

FEMALE. Fore wing length 52 mm. *Upperside*. Fore wing, chestnut area in cell limited to basal half; costal white spot small, that at lower angle elongate. The discal white area more solid, the lower edge straighter; the white spots beyond, as in the male, the lower three comparatively large compared with those above. The white streak on the hind margin strongly developed. Hind wing, basal area large, white in colour with only a slight tinge of rufous at hind angle, outer border very rounded; black border of wing thus reduced, but white submarginal spots distinct in upper half; admarginal spots punctiform but distinct.

For underside vide Pl. 16, figs 115, 116.

RANGE. Nigeria.

Holotype ♂, NIGERIA: Ikom, Ogolo Prov. iii.1956 (Jackson) (BMNH).
Paratype. NIGERIA: Ikom, Ogolo Prov., xi.1955 (Jackson), 1 ♀ (allotype) (BMNH)

Euxanthe (*Hypomelaena*) *tiberius* Grose-Smith

Euxanthe (*Hypomelaena*) *tiberius tiberius* Grose-Smith

(Pl. 16, figs 117–122, Text-fig. 2)

Euxanthe tiberius Grose-Smith, 1889 : 129.
Euxanthe tiberius f. *tiberiella* Strand, 1911 : 120.

MALE. Fore wing length 45–50 mm. Shape, costa curved, apex blunt, outer margin outwardly curved. Hind wing rounded, edge slightly undulating. *Upperside.* Fore wing, ground colour jet black, base with a large bright rufous-chestnut patch, filling most of the cell and the bases of spaces 1a, 1b and extending to the base of the costa. Pattern of greenish white spots in three rows, the discal row large, the spot at end of cell triangular, followed by a larger inverted triangle at base of 4, with a smaller triangular mark at base of 3, then a large elongate spot in 2 extending distad, followed by a horseshoe-shaped mark in 1b; postdiscal row of more ovoid marks extend from costa to 3, more or less in line, then continued down the border as smaller spots; apex with ovoid spots decreasing in size to 4. Hind wing, ground colour uniform black, very slightly brownish at base of costa. The only pattern is a series of greenish white spots in the upper submargin, somewhat variable in number, those in 7–6 being the largest and most constant; the admargin with a series of very small double dots, usually triangular in shape, often fading out at the upper angle. *Underside.* Fore wing, ground colour black in the discal area but browner in the apex and along the outer border. Base with the chestnut area as on upperside, the brown extending along the base of the costa; white dots present on base of costa and base of cell; pattern of pale greenish white spots as on upperside. Hind wing, darker brownish with black rays along the veins and mid cellules. Triangular white dots present at base of wing and costa; spots on submargin and admargin as on upperside or limited to one at upper angle.

Occasionally a dwarf specimen of either sex is taken in which the markings appear large in relation to the areas of the wings.

FEMALE. Fore wing length 50–53 mm. Shape somewhat like that of the male, but outer margin less outwardly curved. *Upperside.* Fore wing, ground colour black, with basal chestnut strong and well defined; the series of spots in the discal line pale greenish white arranged as in the male, somewhat variable in size, especially those at and beyond the end of the cell; the spots in the postdiscal line more whitish but also slightly variable. The spots in the submarginal line white and rather rounded, those in spaces 4 and 5 sometimes vestigial. Margin of wing with small white linear marks on the edge. Hind wing, a large white somewhat rounded area very slightly tinged with greenish, especially in the cell, the white area extending onto the inner fold but its upper border, which is rounded, starts just short of the dark base of the wing and cell, and does not reach the subcosta, its outer border more irregular, invaded by black along the veins. The border is widely black, with a row of white rounded spots in the submarginal line, that in 6 large and ovoid, the spots decreasing in size toward the hind angle; the admargin with a series of double angular white spots with a trace of smaller white lines nearer the edge which has an interrupted white fringe. *Underside.* Fore wing, ground colour black in the discal zone, shading to dull rufescent brown along the costa and the outer border. Base of wing with the rufous-chestnut patch as on upperside. Pattern of pale greenish white spots on upperside, those at the end of the cell slightly increased in size. Hind wing, ground colour rufescent brown, slightly darker on the border; discal whitish patch more clearly defined on border, invaded by dark veins and intermediary black lines which stop short of the edge of

the patch. Submarginal white spots as on upperside, those on the admargin outlined in black, the intermediary white dots more in evidence.

For an account of early stages vide van Someren & Rogers (1928; 1932).

RANGE. Coastal forests of Kenya (Rabai Hills, Shimba Hills, Marima Hill); also recorded from the lower forests of the Usambara Range at Amani, Tanzania.

BIOLOGICAL NOTES

By D. G. Sevastopulo

(Pl. 17, figs 129–136)

OVUM. Spherical, the top fluted and only slightly flattened. Pale creamy when first laid, turning to a pale pinkish tan within 24 hours, finally becoming fairly dark brown all over. Deposited singly on the upper surface of a leaf of the foodplant. Laid 25.viii.64. Hatched 31.viii.64.

LARVA. *1st instar.* Head dark brown, rugose, the upper and lateral horns about the same length, slightly dentate, the lateral horns upcurved, the upper slightly divergent, incurved apically, the tips white. Body golden-brown, under a lens with a subdorsal, lateral and sublateral series of minute white papillae emitting colourless setae. Anal processes long, slender, curved, blackish tipped with white. Moulted 4.ix.64.

2nd instar. Head dark brown with two paler transverse lines, the lateral horns both longer and stouter than the upper, two short spines between the upper, and a single spine between the upper and lateral and another below the lateral, all horns dentate and tipped with white. Body olive, very minutely papillated with white, the sublateral area tinged with crimson. Venter, legs and prolegs dark crimson. Anal processes as before. Moulted 9.ix.64.

3rd instar. Very similar to preceding, the two pale transverse lines on the head more noticeable and the horns longer, both actually and relatively. A fine white sublateral line above the crimson suffusion. Later in the instar a subdorsal white dot appears on the sixth somite. Body noticeably tapered from the ninth somite caudad. Moulted 14.ix.64.

4th instar. Head whitish, two blackish transverse dentate bands, one just below the vertex, the other about central; upper horns slender, straight, slightly divergent, black at the base shading into greyish, the spines between black; lateral horns long and slender, horizontal, the tip upturned, colour white with the base and apex black, the spine between the upper and lateral horns white. Body much as in previous instar, the white subdorsal dots on the sixth somite ringed with black. Eighth somite with a smaller and less distinct white subdorsal dot. Anal processes no larger than before, and so proportionately smaller. After twenty-four hours the markings on the sixth somite become a whitish diamond, finely rimmed with black and containing two dark green dots. Moulted 20.ix.64.

5th (final) instar. Head whitish, deeply punctate, each cheek with a diffuse olive spot divided vertically, a zig-zag olive transverse line on the level of the clypeus, which is filled in with pale green, and with two black spots set obliquely below it; horns similar in shape to previous instar, the lateral tipped with black and black behind, the upper black basally in front, the spines between the upper pair black, the jaws and posterior aspect of the head black. Body green, minutely shagreened with blue-white specks. Dorsal marks on the sixth and eighth somites diamond-shaped, pinkish white and studded with opalescent dots, edged with black and containing two black spots, the whole distinctly raised above the general body level. Anal processes pinkish buff, short and stout, slightly incurved and joined by a transverse pinkish buff band. A pinkish buff sublateral line studded from second to ninth somites with fleshy whitish points. Legs green. Prolegs purplish. Venter green, shading into deep purple laterally. Pupated 30.ix.64.

PUPA. Suspended by the cremaster. Mainly shining, rather translucent, dark green, marked with opaque bluish white as follows: a mark on the eye, a basal and submedian stripe across the wing joined by a connecting bar, and an irregular stripe along the outer margin, a broad transverse band across the third and fourth abdominal somites, containing a green, heart-shaped, dorsal mark on the third. Spiracles black ringed with white. Shape with the head slightly indented frontally, the thorax slightly keeled, wings laterally expanded across the tornus, abdominal somites rising to a transverse ridge on the third somite, which has a subdorsal prominence, and then tapering to the cremaster. Cremaster slender, green, with paired rounded projections on the dorsal aspect and a double projection ventrad. A male emerged 11.x.64.

FOODPLANT. *Deinbollia* sp. (Sapindaceae).

Described from a larva reared from an ovum laid by a female caught in the Makadara Forest.

Euxanthe (Hypomelaena) tiberius meruensis van Someren

(Pl. 17, figs 123–128)

Euxanthe tiberius meruensis van Someren, 1935 : 172.

MALE. Fore wing length 44–46 mm. Shape as in the nominate race. *Upperside.* Fore wing, general pattern similar to that of *t. tiberius*, the rufous patch brighter and more extended, with a small yellowish dot beyond. Discal and postdiscal rows of spots, though similar in form to those of nominate *tiberius*, are all ochre-yellow. Submarginal spots white. Hind wing, ground colour slightly more brownish tinged, especially at base. Submarginal and marginal spots as in the nominate race. *Underside.* Fore wing, rufous patch brighter; distal portion of wing along the costa and apex brighter rufescent brown, with distinct black rays along the veins and intermediate spaces, the latter joining the submarginal subapical white spots with the ochreous ones. The discal spots formed as on upperside, all ochreous in colour on a black ground. A small white spot in margin. Hind wing, ground colour more rufescent brown; black rays slightly more distinct; submarginal and admarginal spots white with black surrounds.

FEMALE. Fore wing length 50–53 mm. *Upperside.* Fore wing, ground colour less intense black, more brownish black. The brownish rufescent area brighter and more extended. The discal row of spots narrower in spaces 2–3, all ochreous in colour. The postdiscal are also ochreous; the submarginal spots white. There is also an ochreous streak in the hind margin at about midpoint. Hind wing, ground colour less intense black, more tinged with brownish in the mid zone; the discal ochreous marking is narrower, being straighter on the hind border and not extending so much into the inner fold, the upper and outer borders straighter. The admarginal double spots white. *Underside.* Forewing ground colour in the apical half more rufescent and darker zone in the discal line not so black. The rufous patch at the base brighter. The spots in the discal zone ochreous; those on the submargin white. The streak on the hind margin similar to that of upperside, but larger. Hind wing, ground colour more rufescent brown, the discal patch restricted as on upperside, pale ochreous in colour. The black rays and veins distinct. Postdiscal spots as on upperside, ochreous in colour. Admarginal spots white with black surrounds. Edge very narrowly white in interspaces.

RANGE. This very distinct race occurs in the forests on the lower slopes of eastern Mt Kenya, but is more plentiful in the lower Meru forest. It is also found in the forests in the Meru Game Park.

SYSTEMATIC LIST

Euxanthe (Euxanthe) eurinome (Cramer)

Euxanthe (*Euxanthe*) *eurinome eurinome* (Cramer, 1775). Type-locality: 'Indies Orient' (patria falsa). Africa Occidens.

Range: Sierra Leone, Ivory Coast, Ghana, Nigeria, Fernando Po,? Cameroun.

eurinome ansellica (Butler, 1870). Type-locality: Angola, Kinsembo.

f. *burgeoni* Le Cerf, 1925. Type-locality: E. Zaire, Kindu.

var. *radiata* van Someren & Rogers, 1927. Type-locality: Central Uganda.

Range: Angola, Central African Republic, central and eastern Zaire, west and central Uganda.

eurinome celadon Le Cerf, 1923. Type locality: Gabon.

Range: Gabon.

eurinome elgonae subsp. n. Type-locality: Mt Elgon.

Range: N.E. Kenya in the Elgon area, Uganda, W. Nile district, Metu.

eurinome birbirica Ungemach, 1932. Type-locality: Ethiopia, S.E. Youbdo.

Range: S.E. Ethiopia, Youbdo district.

Euxanthe (*Euxanthe*) *crossleyi* (Ward)

Euxanthe (*Euxanthe*) *crossleyi crossleyi* (Ward, 1871). Type-locality: Cameroun.

f. *niepelti* Bryk, 1939. Type-locality: Bipindi.

Range: Cameroun, Central African Republic, Zaire, Gabon, Zambia.

crossleyi ansorgei Rothschild & Jordan, 1903. Type-locality: N.W. Kenya.

f. *babbingtoni* Stoneham, 1943. Type-locality: N.W. Kenya.

Range: N.W. Kenya, Nandi and Teriki Hills, Elgon.

crossleyi magnifica Rebel, 1914. Type-locality: Zaire, Nawambi-Irumu.

= *intermedia* Joicey & Talbot, 1921. Type-locality: Zaire, Ituri Forest.

Range: Zaire, E. and W. Uganda.

crossleyi claudiae Rousseau-Decelle, 1934. Type-locality: Zaire, Katanga, Kafakumba.

Range: Zaire in the Katanga district.

Euxanthe (*Euxanthe*) *wakefieldi* (Ward)

Euxanthe (*Euxanthe*) *wakefieldi wakefieldi* (Ward, 1873). Type-locality: E. Africa at Ribe, coastal hinterland.

f. *rubiginea* Le Cerf, 1923. Type-locality: Tanzania, Nguru.

Range: coastal forests of Kenya, Tanzania extending S. to Delagoa Bay, Malawi and inland to Zambia.

Euxanthe (*Euxanthe*) *madagascariensis* (Lucas)

Euxanthe (*Euxanthe*) *madagascariensis* (Lucas, 1842). Type-locality: Madagascar.

Range: Malagasy Republic.

Euxanthe (Hypomelaena) trajanus (Ward)

Euxanthe (*Hypomelaena*) *trajanus trajanus* (Ward, 1871). Type-locality: Cameroun.
= *schatzi* Staudinger, 1885. Type-locality: Cameroun.
Range: Cameroun and adjacent countries to W. of Congo River.
trajanus vansomereni Poulton, 1929. Type-locality: Uganda, Mawakota District.
Range: Uganda, central forests extending east to Mabira Forest.
trajanus gabonicus Le Cerf, 1923. Type-locality: Gabon, Lambareni on Ogowe River. Status doubtful through lack of material.
f. *depuncta* Le Cerf, 1923. Type-locality: Gabon, Ngemo on Ogowe River.
Range: Gabon, Ogowe River.
trajanus antonius Rousseau-Decelle, 1930. Type-locality: Zaire, Katanga, Kafakumba.
Range: as type locality.
trajanus nigeriae subsp. n. Type-locality: Nigeria, Ikom.
Range: Nigeria.

Euxanthe (Hypomelaena) tiberius Grose-Smith

Euxanthe (*Hypomelaena*) *tiberius tiberius* Grose-Smith, 1889. Type-locality: Mombasa area.
f. *tiberiella* Strand, 1911. Type-locality: Tanzania, Amani. Range: coastal forests of Kenya and the Usambara Range, Tanzania.
tiberius meruensis van Someren, 1935. Type-locality: Meru, Kenya. Range: East Mt Kenya, lower Meru forest and Meru Game Park.

A BRIEF HISTORICAL REFERENCE

Rothschild & Jordan (1898; 1900; 1903) published the results of their investigation into the genus *Charaxes* and its allies in their monumental work *A Monograph of Charaxes and the Allied Prionopterous Genera*. They employed the 'omnibus' genus *Charaxes* for all the African species with the exception of *Palla* and *Euxanthe*, which they dealt with in 1903.

Aurivillius (1911), when dealing with the African Rhopalocera, arranged the species in groups under the genus *Charaxes*, retaining *Palla* and *Euxanthe* as distinct genera.

Stichel (1939) gave a full list of the African 'Charaxidinae', supplying at the same time an exhaustive list of references, a monumental work in itself. He followed the general arrangement of Poulton (1926) but rearranged the groups and some of the species within them.

Peters (1952) published his *A Provisional Check-list of the Butterflies of the Ethiopian Region* and, in the section on 'Charaxidinae', also followed Poulton (1926) and the general arrangement adopted by the British Museum (Natural History). Poulton

had divided the genus *Charaxes* into the Hadrodontiae and Leptodontiae based on the character of the fore wing costa. The Hadrodontiae have the costa coarsely serrate and include species No. 1–55 in my Synoptic List compared with the Leptodontiae with the costa finely serrate which contain the remaining species No. 56–119 of the Synoptic List. These 'subgenera' were divided into groups and subgroups but Peters placed *Euxanthe* before and *Palla* after *Charaxes*.

In my *Revisional Notes on African Charaxes*, I have endeavoured to reassess the species and subspecies occurring in Africa and the adjacent islands, including Madagascar. I have not followed any accepted order or grouping but have left this to the Synoptic List, which broadly follows Peters (1952). Where I have advocated a departure from the hitherto accepted classification I have done so as a result of personal study of the imagines, as well as the early stages and foodplants, by rearing many broods from captive females of a great number of species. Thus I have endeavoured to make some sense of the 'black' *Charaxes* centred around *Charaxes etheocles*.

Certain species appear to form compact groups, based on morphological characters; thus *varanes*, *fulvescens* and *acuminatus* all have characters in common and feed on *Allophylus* (Sapindaceae) and are now placed in the subgenus *Stonehamia* (Cowan, 1968 : 6), which replaces *Hadrodontes* Stoneham.

On the evidence of the early stages and foodplants I have followed Rydon (1971) and raised both *Palla* and *Euxanthe* to subfamily status (Pallinae and Euxanthinae), retaining the subgeneric name *Hypomelaena* Aurivillius for the two species with black undersides in the males, viz. *trajanus* and *tiberius*.

When the early stages of the *Charaxes doubledayi-mycerina* group have been recorded the probability is that this group, too, will warrant subfamily status.

CORRIGENDA TO PARTS I–IX

PART I.

p. 197 line 13 for '*pythodorus*' read *pythodoris*
,, 38 for 1925 read 1911–12
,, 39 after 'his' insert *A Provisional*
after '*Check*' insert hyphen
after '*the*' insert *Butterflies of the*
after '*Ethiopian*' insert *Region*
p. 198 line 2 delete '*Butterflies*'
p. 205 ,, 37 for 'Cramer' read (Cramer)
,, 39 delete '*Charaxes*' insert *Papilio Eques Achivus*
for '1776' read 1775–76
p. 206 line 4 for '*Check List*' read check-list
p. 207 line 19 for 'Cramer' read (Cramer)
,, 20 ditto
p. 220 line 32 for '*PYTHODORUS*' read *PYTHODORIS*
,, 36 for '*pythodorus*' read *pythodoris*
,, 41 for '*pythodorus pythodorus*' read *pythodoris pythodoris*

p. 221 Caption for 'PYTHODORUS PYTHODORUS' read PYTHODORIS PYTHODORIS
Legend for '*pythodorus*' read *pythodoris*
p. 222 line 8 for '***pythodorus pythodorus***' read ***pythodoris pythodoris***
,, 10 for '*pythodorus*' read *pythodoris*
p. 223 line 13 ditto
,, 14 for '***pythodorus***' read ***pythodoris***
,, 33 ditto
p. 224 line 24 ditto
,, 26 for '*pythodorus*' read *pythodoris*
,, 42 ditto
p. 225 line 23 for '***pythodorus***' read '***pythodoris***'
,, 24 for '*pythodorus pythodorus*' read *pythodoris pythodoris*
p. 233 line 2 for **sp.** read **ssp.**
25 after 'male' insert colon
Index for 'pythodorus' read pythodoris
Pl. 12 Legend line 4 for '*pythodorus pythodorus*' and '*pythodorus*' read *pythodoris pythodoris* and *pythodoris*
Pl. 13 Legend line 2 for '*pythodorus*' read *pythodoris*

PART II.

p. 206 line 25 for '(Schultze)' read Schultze
Pl. 1 Legend line 2 for 'Cramer' read (Cramer)
line 3 ditto
,, 4 for 'Stoll' read (Stoll)
,, 5 ditto
,, 6 ditto
Pl. 2. Legend line 2 for 'Cramer' read (Cramer)
Pl. 3 ditto
Pl. 4 ditto
Pl. 5 ditto
Pl. 6 ditto
Pl. 7 ditto

PART III.

p. 47 after line 11 insert 3. THE *Charaxes etheocles* (s.l.) COMPLEX PART 1
line 12 delete '3'
,, 15 delete
,, 16 ,,
,, 17 ,,
p. 69 lines 32, 33 transfer to after line 18
p. 70 after line 11 insert 3. THE *CHARAXES ETHEOCLES* (s.l.) COMPLEX PART 1

p. 70 line 12 delete '3'
,, 16 after '*Charaxes*' insert *etheocles*
,, 17 after 'Jordan' insert as a subspecies of *etheocles*
p. 74 line 27 delete
lines 28–33 transfer to p. 97 below line 25
p. 90 line 14 for '269' read 270
p. 92 line 5 delete '1889' insert 1899
p. 96 line 20 for 'Chriten' read Christon
p. 97 after line 25 insert lines 28–33 from p. 74
p. 98 line 30 delete 'Delagoa Bay, Zomba and Taveta'

PART IV.

p. 279 line 6 for 'Boisduval' read (Boisduval)
,, 12 for 'CRAMER' read (CRAMER)
,, 21 for 'BOISDUVAL' read (BOISDUVAL)
p. 281 line 23 for 'Boisduval' read (Boisduval)
,, delete *Charaxes* insert *Nymphalis*
p. 287 after line 10 insert Allotype female. Same data as holotype.
p. 288 line 16 for '32' read 23
p. 291 line 40 for '*citheronoides*' read *cithaeronoides*
p. 311 line 10 delete 'Kilimanjaro at Wasendo, 6000 ft. Type ♂.' insert Type male. Type locality. Tanzania, Usambara Range, Magamba Forest nr Lushoto.
,, 13 for 'CRAMER' read (CRAMER)
,, 34 for 'Cramer' read (Cramer)
,, 36 delete '*Charaxes*' insert *Papilio Eques Achivus*
p. 315 line 1 for '*CHARXAES*' read *CHARAXES*
,, 13 for 'Cramer' read (Cramer)
,, 14 ditto
p. 316 line 8 for 'Charaxes' read *Charaxes*
Pl. 9 legend line 2 for 'Cramer' read (Cramer)
,, 5 ditto

PART V.

p. 77 line 16 After 'COMPLEX' insert, PART 2
p. 81 Map 1 Key, abbreviation for *Charaxes* is *Ch.*, not '*C*', also on Maps 3–7 and throughout text.
p. 98 line 36 ditto
p. 99 after line 29 insert '*Nymphalis ephyra* Godart t.c.
p. 101 line 33 for 'Godart' read (Godart)
p. 114 line 10 for '*hollandi*' read = *hollandi*
,, 20 delete '*hollandi*' insert *ephyra*
p. 125 line 30 delete '25 : 42–43' insert 32 : 141–172

p. 132 Map 6 Key line 22 for 'Som' read Son
,, 26 for '*figini*' *read fagini*
p. 133 after line 27 insert *Charaxes chanleri* Holland, 1896a : 262 [♂]
line 28 for '1895 : 753' read 1896b : 753 [♀]
p. 165 Index for 'catachrous' read catochrous
p. 166 ,, after line 16 insert fagini, 149

PART VI.

p. 199 line 8 for 'DEWITZ' read (DEWITZ)
,, 12 for 'CRAMER' read (CRAMER)
,, 18 for 'DRURY' read (DRURY)
,, 28 for 'DEWITZ' read (DEWITZ)
,, 28 abbreviations for *Charaxes* is *Ch.*, not '*C*' throughout text and on Maps
p. 212 line 36 for 'CRAMER' read (CRAMER)
p. 214 line 4 for 'Cramer' read (Cramer)
,, 27 for 'Cramer' read (Cramer)
,, 29 for '*eques*' read *Eques*
p. 221 after line 23 insert *Charaxes brutus andara* Ward, Rothschild & Jordan, 1900 : 435
p. 222 line 40 for '(Cramer, 1779)' read (Cramer), 1779.
p. 235 line 20 for '*quanzensis*' read *cuanzensis*
p. 236 line 19 for 'DRURY' read (DRURY)
p. 238 line 32 for 'Drury' read (Drury)
p. 239 line 20 ditto
,, 22 delete '*Charaxes*' insert *Papilio Eques Achivus*
p. 247 line 22 for 'Drury' read (Drury)
,, 23 ditto
Pl. 1 legend line 3 for 'Dewitz' read (Dewitz)
Pl. 3 line 4 for 'Cramer' read (Cramer)
Pl. 8 line 3 for 'Drury' read (Drury)
Pl. 9 line 2 ditto
Pl. 10 line 2 ditto

PART VII.

p. 183 line 7 for 'CRAMER' read (CRAMER); for '*hansalii*' read *hansali*
,, 9 ditto
,, 25 ditto; for '***HANSALII***' read ***HANSALI***
,, 26 for 'Cramer' read (Cramer)
p. 184 line 5 ditto
p. 190 line 14 for '***hansalii hansalii***' read ***hansali hansali***
p. 191 caption line 1 for 'HANSALII' read 'HANSALI'
lines 2–5 for '*hansalii*' read *hansali*
line 5 for '***hansalii***' read ***hansali***

p. 192 line 35 for ***'hansalii'*** read ***hansali***
p. 193 line 5 for ***'hansalii'*** read ***hansali***
,, 19 for 'Cramer' read (Cramer)
,, 20 ditto
,, 26 for '*antigua*' read *antiqua*
p. 194 line 2 for ***'hansalii'*** read ***hansali***
,, 3 for '*hansalii hansalii*' read *hansali hansali*
,, 5 for '*hansalii*' read *hansali*
,, 12 ditto
,, 14 ditto
,, 16 for 'CRAMER' read (CRAMER)
,, 18 for 'Cramer' read (Cramer)
p. 195 line 4 for *eques* read *Eques*
p. 207 line 41 for 'Hewitson' read (Hewitson)
p. 225 Index after 'adusta' insert aginga, 186
for '*antiqua*' read antiqua
p. 226 index for 'hansalii' read hansali
Pl. 1 Legend line 2 for 'Cramer' read (Cramer)
Pl. 2 ,, 2 ditto
Pl. 3 legend lines 9–11 for '*hansalii*' read *hansali*
Pl. 4 legend line 2 for '*hansalii*' read *hansali*
Pl. 5 ,, 2 for 'Cramer' read (Cramer)
Pl. 8 ,, 6 for 'Hewitson' read (Hewitson)
,, 7 ditto
Pl. 9 ,, 6 for 'Drury' read (Drury)
,, 7 ditto

PART VIII.

p. 217 line 9 for 'DEWITZ' read (DEWITZ)
,, 11 for '*thysii*' read *thysi*; for '*C.*' read *Ch.*
,, 20 for 'CRAMER' read (CRAMER)
,, 22 for 'HEWITSON' read (HEWITSON)
for '*C*' read *Ch.*
,, 27 ditto
for 'SCHULTZ' read SCHULTZE
,, 31 for '*mccleeryi*' read *maccleeryi*
p. 218 line 2 for 'DEWITZ' read (DEWITZ)
p. 219 line 15 for 'Dewitz' read (Dewitz)
,, 16 ditto
,, 21 for ***'THYSII'*** read ***THYSI***; for ***'C.'*** read ***CH.***
,, 23 for ***'thysii'*** read ***thysi***
p. 220 caption line 4 for '*thysii*' read *thysi*

p. 222 line 12 for '1925' read 1926
,, 31 for ***'thysii'*** read ***thysi***
,, 32 for *'thysii'* read *thysi*
,, 38 for '1925' read 1926
p. 227 line 33 for '211' read 271
p. 228 line 14 after Cottrell). delete
line 13 for 'Lisombe' read Lisombo
,, 15 delete
,, 16 delete 'Malawi and adjacent'
p. 235 line 29 for 'CRAMER' read (CRAMER)
p. 240 line 3 for ***'Cramer'*** read (Cramer)
,, 4 for 'Cramer' read (Cramer)
,, 30 for **'C'** read **CH.**
for 'HEWITSON' read (HEWITSON)
p. 241 line 23 for '1865' read 1859
p. 245 line 14 for 'Ungemache' read Ungemach
,, 20 for ***'C'.*** read ***Ch.***
,, for 'Hewitson' read (Hewitson)
,, 21 for '1865' read 1859
p. 253 line 24 for ***'barnesi'*** read ***barnsi***
,, 26 for *'barnesi'* read *barnsi*
p. 254 line 38 for ***'barnesi'*** read ***barnsi***
,, 39 for *'barnesi'* read *barnsi*
p. 255 line 3 for ***'C.'*** read ***CH.***
for ***'MCCLEERYI'*** read ***MACCLEERYI***
p. 257 line 21 for ***'mccleeryi'*** read ***maccleeryi***
,, 27 for *'mccleeryi'* read *maccleeryi*
p. 258 line 31 for *'Kleilland'* read *Keilland*
,, 42 for ***'mccleeryi'*** read ***maccleeryi***
,, 43 for *'mccleeryi'* read *maccleeryi*
p. 260 line 32 delete **'ssp. n.'** insert van Someren
after line 33 insert See *Charaxes xiphares kilimensis* van Someren, 1969 : 82
lines 34–46 delete
p. 261 delete
p. 262 lines 2–6 delete
after line 9 insert *Charaxes imperialis ludovici* Rousseau-Decelle, Stichel, 1939 : 452
line 12 for 'race,' read race. and delete remainder of sentence.
,, 14 delete '(Grahame coll.)' (MNHN, Paris)
,, 23 delete 'ssp.n.' insert van Someren, 1969.
p. 264 Index for 'barnesi' read barnsi
for 'mccleeryi' read maccleeryi
for 'lecerfi, 232' read lecerfi, 222
for 'thysii' read thysi
Pl. 1 Legend line 4 for *'hiblderandti* Dewitz,' read *hilderbrandti* (Dewitz),

Pl. 1 Legend line 5 for 'Dewitz' read (Dewitz)
,, 8 for '*thysii*' read *thysi*
,, 11 for '*lecer*$\frac{1}{4}$' read *lecerfi*
,, 13 ditto
Pl. 7 Legend line 7 for 'Cramer' read (Cramer)
,, 9 ditto
Pl. 8 Legend line 8 for 'Hewitson' read (Hewitson)
,, 9 ditto
,, 10 ditto
,, 11 ditto
Pl. 11 Legend line 8 for '*barnesi*' read *barnsi*
Pl. 12 legend line 7 for '*mccleeryi*' read *maccleeryi*
,, 9 ditto
,, 14 delete '(I. Grahame)' insert (MNHN, Paris)
,, 15 delete

PART IX.

p. 417 line 8 for 'TRIMEN' read (TRIMEN)
,, 10 for 'GODART' read (GODART)
,, 16 for 'DRURY' read (DRURY)
,, 22 for 'WESTWOOD' read (WESTWOOD)
,, 25 for 'GODART' read (GODART)
,, 28 for 'DRURY' read (DRURY)
,, 31 for 'STOLL' read (STOLL)
,, 35 for 'GODART' read (GODART)
,, 39 for 'CRAMER' read (CRAMER)
p. 418 line 2 for 'TRIMEN' read (TRIMEN)
,, 3 for 'Trimen' read (Trimen)
,, 16 ditto
,, 18 delete '*Charaxes*' insert *Nymphalis*
p. 424 line 35 for 'Trimen' read (Trimen)
,, 36 ditto
p. 425 line 13 for 'GODART' read (GODART)
p. 444 line 25 for 'Westwood' read (Westwood)
p. 452 line 26 for 'Godart' read (Godart)
,, 28 delete '*Charaxes*' insert *Nymphalis*
p. 460 line 13 insert *Nymphalis* before *nesiope*
p. 462 line 3 for 'his' read Rochat
,, 23 for 'Plantrou' read Rochat
,, 29 for 'Godart' read (Godart)
,, 30 ditto
p. 463 line 19 for 'Drury' read (Drury)
p. 466 line 19 insert *Nymphalis* after '*Papilio*'; for '*phaleratus*' read *Phaleratus*; for '1872' read 1782

p. 467 line 33 for 'Stoll' read (Stoll)
p. 470 line 3 insert Pl. 15, fig. 168
p. 472 line 3 delete 168 insert 167
p. 476 line 8 for 'CRAMER' read (CRAMER)
p. 480 line 24 for '(Cramer, 1764).' read (Cramer), 1764.
,, 28 for '(Mabille, 1876).' read (Mabille), 1876.
p. 483 line 44 for '***lactitinctus*** Karsch' read ***lactetinctus ungemachi*** Le Cerf
,, 46 for '*lactitinctus*' read *lactetinctus*
p. 486 Index for lactitinctus read lactetinctus
p. 487 Index for '*ungemachi*' read ungemachi
Pl. 1 Legend line 2 for '*Trimen*' read (Trimen)
,, 4 for 'Trimen' read (Trimen)
,, 6 ditto
,, 7 ditto
,, 8 ditto
Pl. 9 Legend line 4 for 'Godart' read (Godart)
,, 5 ditto
,, 6 ditto
Pl. 11 Legend line 14 for 'Drury' read (Drury)
,, 15 ditto
,, 16 ditto
Pl. 12 Legend line 4 ditto
Pl. 13 Legend line 8 for 'Stoll' read (Stoll)
,, 9 ditto
,, 10 for 'Godart' read (Godart)
,, 11 ditto
Pl. 14 Legend line 4 ditto
,, 5 ditto
,, 6 for '*thomassius*' read *thomasius*
Pl. 15 Legend line 9 delete '& 168' and one ♀ symbol
after line 9 insert Fig. 168 *candiope thomasius* Staudinger & Schatz ♀ (Sao Thomé)
Pl. 17 Legend line 2 for 'Cramer' read (Cramer)
Pl. 18 Legend line 14 for '*lactitinctus*' read *lactetinctus*
,, 16 ditto

ADDENDA

Since the submission of the typescript, photographs and maps for Part X of my Revisional Notes on African *Charaxes*, several new species and subspecies have been added to the taxa dealt with in this series. The following addenda include the data, both published and unpublished, which have come to my notice up to June 1974. The opportunity is also taken to elevate certain taxa within the 'black *Charaxes*' complex to specific status and to re-name certain taxa which have been found to be homonymous. I am indebted to Mr T. G. Howarth, Dr A. H. B. Rydon and to Mr C. F. Huggins for much help with the preparation of these addenda

and also wish to thank Messrs W. H. Henning, S. C. Collins and R. S. White for the loan of material and coloured photographs.

FURTHER DESCRIPTIONS AND NOTES ON SPECIES AND SUBSPECIES OF *CHARAXES*

Charaxes fulvescens (Aurivillius)

Charaxes fulvescens (Aurivillius); van Someren, 1963 : 210.

Dr M. Condamin of I.F.A.N., Dakar, has recently drawn my attention to the fact that *Charaxes fulvescens* extends into Senegal, but it is here represented by a distinct subspecies. Through the kindness of Dr Condamin I have been able to examine a series of three males and two females.

Charaxes fulvescens senegala subsp. n.

MALE. Fore wing length 43–45 mm. Apex bluntly pointed, outer margin slightly concave in spaces 3–5. Hind wing margin rather rounded with a short blunt tail, 5 mm in length at vein 4. *Upperside*. Ground colour darker than in nominate race. Fore wing, basal area more fulvous but paler at the base of the hind wing, but both with a slight greenish tinge. Discal zone more rufescent, especially in hind wing where it borders on the darker distal portion of the wings. Fore wing with a series of large rufous-tawny spots in the post discal line, extending from the subcosta to 1*b* flanked by a more obscure series in the submarginal zone. Two large contiguous spots present beyond the cell; flanked by dark spots at apex of cell and the subbasal areas of spaces 4–2. Hind wing, basal area as fore wing with a strong rufescent zone bordering the proximal edge of the dark border carrying a series of somewhat rounded obscure dark spots. Edge of wing slightly rufous. *Underside*. Fore wing, basal area dark greyish brown with a few fine black lines and dots towards the base, accentuated in the discal line by a blacker line edged distally with whitish. This line is angled at vein 6, then curves to the hind margin and continues in the hind wing where it is almost straight from mid-costa to the hind angle. The distal portions of both fore and hind wing have a slight satiny sheen. A large dark ocellus in subcosta of space 6 followed by very obscure spots in the postdiscal area.

FEMALE. Fore wing length 50–51 mm. Similar in markings to male.

Holotype ♂, SENEGAL: Forêt classée Santiaba-Mandjak, 4.xi.1965 (*M. Condamin*) (MNHN, Paris).

Allotype ♀, SENEGAL: Forêt classée Santiaba-Mandjak, 19.x.1962, sur banane fermentée (Mission IFAN en Basse Casamance) (MNHN, Paris).

Paratypes. 1 ♂, same data as holotype but 13.x.1962 (IFAN, Senegal); 1 ♀, same data as allotype but 18.x.1962 (BMNH); 1 ♂, Forêt classée de Tobor, 21.xi.1961, sur banane fermentée (Mission en Basse Casamance) (BMNH).

Charaxes octavus Minig

(Pl. 18, figs 137, 138)

Charaxes octavus Minig, 1971 : 269.
Charaxes patergodarti Neidhoefer, 1972 : 5.

The description of this new species is based on a single male specimen taken at Bangui, Central African Republic. According to Neidhoefer his specimen, which is

also a male from Bangui, and which is possibly the same specimen as that described by Minig, is a large insect similar in coloration to *Ch. eudoxus* and *Ch. lucretius* on the upperside. Its underside is a unique combination of both species but is closer to *lucretius*.

Charaxes ansorgei rydoni van Someren

(Pl. 18, figs 139, 140)

Charaxes ansorgei rydoni van Someren, 1967 : 309.

The description of this distinctive race was based on males only, but the female has since been taken by Mr Ivan Bampton in the Magamba Forest, Lushoto, Tanzania. I am indebted to Mr W. Henning for colour photographs of this sex.

Female. *Upperside.* Fore wing length 47 mm. Basal area chestnut with obscure black marks in the mid cell and inward to its end where they merge into the black distal half of the wing, which is crossed by a series of spots, large and whitish in area 1 and 2, more ochreous in 3–4 in subcostal region. Postdiscal spots discreet and more strongly orange-ochreous, but conjoined with the discal spots in 3–4. Outer half of wing black but with conspicuous orange ochreous spots on the margin. Hindwing, basal area chestnut, shading to greyish on the inner fold. Discal band white, mainly broad but abruptly narrowing towards costa on proximal edge, but here indicated by obscure whitish marks. Outer border black, narrowing at anal angle. Admarginal orange triangular marks conspicuous, becoming linear at anal angle. Anal angle with two blue spots, lower one large. Margin serrate with long tapering pointed tails at 3 and 6. *Underside.* More boldly marked than in other races; the general pattern somewhat similar to that of the male but markings bolder and more conspicuous, the purple anal spot and one above very bold.

Neallotype ♀, Tanzania: Usambara Mts, Lushoto, Magamba, 6000 ft, 4.iii.1973 (*I. Bampton*) (W. H. Henning Coll.).

Charaxes eudoxus lucyae **subsp. n.**

(Pl. 18, figs. 141–144)

Female. Length of fore wing 44 mm and 30 mm from mid-costa to hind angle. *Upperside.* Fore wing, basal area bright chestnut; end of cell with slightly curved black lines; discal spots black, large at bases of spaces 4 and 3, slightly indicated in upper part of 2; beyond, towards costa two black spots, irregular in shape. Discal band orange, widest at the hind margin and tapering to subapex; the three subapical spots rounded and distinct. Border of wing black, extending along veins; interspaces orange, extending to apex. Hindwing, basal area orange-chestnut, shading to greyish, tinged at base of inner fold, both shading distally into the orange-yellow band which is darker orange-yellow to above the anal angle. This is followed by a broad black band, widest at upper angle and extending to anal angle which has two blue spots. Border orange and broad margin serrate with black edge; long thin pointed tails at veins 4 and 6. *Underside.* Very orange. Fore wing, ground colour bright chestnut from base to subapex, strongly marked with black oblong spots, circular at base, more irregular, elongate in cell and linear at subapex, all strongly outlined in white. Post discal bar wide at base and triangular, becoming a series of double lunate marks. The bar is white inwardly, shaded with orange distally to margin and with conspicuous black marks in hind angle and with violet spots in 4–5. Margin of wing orange, the tips of the veins indicated as upperside. Hind

wing, bright chestnut at base widening in post discal zone; the base with black lines forming elongate triangles on inner fold and lower disc, all outlined in white. Discal bars white, double at costa, then going straight to inner fold; the double lines with paler orange-chestnut between. Post discal zone bright chestnut, widest towards upper angle, then tapering towards anal angle which carries double rounded conjoined spots with bluish purple centres. The band with indistinct shading centrally, but margined distally with black, accentuated distally with white. Edge of wing orange, accentuated at margin with black.

Holotype ♀, TANZANIA: Usambara Mts, Magamba Forest, Lushoto, 6000 ft, 4.iii.1973 (*I. Bampton*). To be deposited in BMNH.

Paratype ♀, TANZANIA: Usambara Mts, Magamba Forest, Lushoto, 5000 ft, ii. 1974 (*S. C. Collins*). Deposited in BMNH.

Charaxes cithaeron cithaeron Felder

♀ aberration ***whitei*** **ab. n.**

(Pl. 19, figs 145, 146)

Differs from the nominate female by having the hind wing upperside discal area pale ochreous instead of bluish white. The ground colour of both wings on upper- and underside paler than normal but this may be due to the worn and tattered condition of this specimen. I have been unable to trace any record of a similar specimen in collections or in the literature.

Holotype ♀, SOUTH AFRICA: Natal, Eshowe, 8.v.1971 (*R. S. White*) B.M.1974–332.

Charaxes pythodoris davidi Plantrou

Charaxes pythodoris davidi Plantrou, 1973 : 269.

Apparently this newly described subspecies from Ivory Coast is smaller and differs in shape and markings from both the nominate subspecies and subsp. *occidens* van Someren described from Central African Republic (French Congo) and Nigeria.

Charaxes hildebrandti gillesi Plantrou

Charaxes hildebrandti gillesi Plantrou, 1973 : 274.

Apparently this newly described subspecies occurs in the Ivory Coast and Ghana and in both sexes may be distinguished from the nominate subspecies by the wider creamy white median band on the upper and underside of both fore and hind wings.

Charaxes usambarae van Someren & Jackson

♀ form ***collinsi*** **forma n.**

(Pl. 19, figs 147, 148)

Upperside. Differs from the nominate female in that the fore wing discal bar is wider at the base, forming a triangle from the hind margin to the cell; the spots above angles on the distal side, the uppermost slightly inset. The subapical spots white; the upper three in line, the two below smaller and inset. Two indistinct whitish spots at hind angle. Hindwing,

discal bar wider and more diffuse on margins. Submarginal linear spots more distinct, so also the marginal lunules. Edge of wing slightly more serrate; tails longer and thinner. *Underside.* Fore wing, ground colour paler, darker on border. Base with three rounded black spots outlined in white followed by a wavy black line in mid cell, and a similar mark beyond, black lines at bases of spaces 1 and 2 similarly outlined. Discal white bar narrower than upperside and less distinct, the spot in space 1 only joined slightly to post discal spot which is represented above by indistinct dyslegnic spots, the upper ones representing the white subapical spots of upper side; the whole row distally bordered by dark obscure marks, most distinct at hind angle. Hind wing much as in nominate form but with median band narrower, distally outlined by darker zigzag line. Submarginal line as in upperside but less distinct, ending in three spots in anal angle. Marginal border less distinct than upperside.

Holotype ♀, TANZANIA: Usambara Mts, Amani. Bred on *Albizzia* sp. by African collector for S. Collins. x. 1973. Deposited in BMNH.

Charaxes martini van Someren

(Pl. 19, figs 149, 150)

Charaxes martini van Someren, 1966 : 96 [♂].
Charaxes martini van Someren, 1974 : 483 [♀].

This hitherto elusive species appears to be confined to the higher ground of Mlange Mt, especially near the Malosa Stream, in Malawi. When first described it was known only from the male and later a very damaged female was described. A female specimen in good condition has since been taken in the type-locality by Dr C. H. McCleery who has kindly supplied the photographs which are reproduced here. The male is characterised by the diffuse greenish subapical spots of the fore wing and the conspicuous greenish band in the discal portion of the hind wing, followed by a complete row of white spots; the margin strongly marked with reddish and greenish markings. The underside is strongly marked on a silvery ground by black lines. The female is also boldly marked both on the upper- and undersides. The pattern is very similar to that of the male. The upperside median bar is slightly tinged with yellowish and is slightly more tinged with greenish on the lateral edging of the hind wing. The hind wing underside is rather silvery with a greenish post discal bar. The tails are longer than those of the male.

Charaxes mafuga van Someren

(Pl. 19, figs 151, 152)

Charaxes mafuga van Someren, 1969 : 97.

This species was originally described from male specimens taken in the Mafuga area of Kigezi in S.W. Uganda. The female had not been authentically identified until it was bred from a larva found by Mr I. Bampton in the same area.

FEMALE. Larger than the male but with the same distinctive underside. Fore wing length 37·5 mm. *Upperside.* Fore and hind wing ground colour black, slightly more brownish towards base of fore wing. Fore wing, discal line of spots from beyond the cell blue, almost straight except for spot in apex of cell, gradually increasing in size to hind margin; post discal spots of subapex in a line, followed by spots of increasing size, those towards the hind margin

larger and contiguous with the discal spots. Hind wing, blue band almost straight on inner edge, single on the costa but fused beyond but not reaching the inner fold. Submarginal marks linear and blue and distinct, double at anal angle. Admarginal marks linear to upper tail; edge of wing bluntly serrate, bluish olive in colour. Tails; upper slightly spatulate, lower shorter and pointed. *Underside.* Fore wing, greyish brown in basal area, more brownish distally. Base crossed by fine black lines; disc crossed by greyish white bar, widest towards the end of cell, accentuated distally by darker brown separating it from the whitish post discal series of silvery grey dyslegnic spots which are conjoined with those of the subapex. This bar is accentuated distally by a series of brownish grey marks widest towards the hind angle, this in turn is accentuated by silvery grey, which is more brownish towards the outer margin. Hind wing, basal area silvery grey, paler towards the inner fold, crossed in the subbase by a whitish bar. Discal bar distinct, narrower and zigzag in mid area, widening to the costa but here accentuated by the darker brown post discal band which carries a series of crescentic marks distally. Border pale grey with a series of white linear marks outwardly edged with blue; margin narrowly edged with orange that has a greenish tinge.

Neallotype ♀, UGANDA, Ruhiza, Impenetrable Forest, 8000 ft, 28.ix.1972 (*I. Bampton*) B.M.1972–571.

A FURTHER NOTE ON THE 'BLACK' *CHARAXES* COMPLEX

As a result of breeding from known females by Mr I. Bampton and Mr W. H. Henning in some cases, and on the evidence revealed by the examination of the male genitalia by Mr G. A. Henning and Dr A. H. B. Rydon in most cases, the raising in status of the names listed below is now suggested.

It is clear from their original descriptions that *pseudophaeus* and *chintechi* were proposed as infrasubspecific names, and have thus been strictly unavailable under the *International Code of Zoological Nomenclature* until now; *protomanica*, proposed for a form after 1960, and *vansoni*, proposed for a form of a subspecies, have also been hitherto unavailable under the *Code*. These four names thus become available now for the first time and are therefore marked 'sp. n.' in the list below. References are given to their original descriptions as forms, and their type-material is that cited at the time of these original descriptions. The remaining six names have had previous availability as species-group names.

Charaxes nyikensis van Someren **stat. n.**

Charaxes alpinus nyikensis van Someren, 1966 : 85.

Charaxes pseudophaeus van Someren **sp. n.**

Charaxes manica ♀ f. *pseudophaeus* van Someren & Jackson, 1957 : 46.
Charaxes manica ♀ f. *pseudophaeus* van Someren & Jackson; van Someren, 1966 : 89.

Charaxes chintechi van Someren **sp. n.**

Charaxes manica ♀ f. *chintechi* van Someren & Jackson, 1952 : 270.
Charaxes manica ♀ f. *chintechi* van Someren & Jackson; van Someren, 1966 : 90.

Charaxes protomanica van Someren **sp. n.**

Charaxes manica ♀ f. *protomanica* van Someren, 1966 : 91.

Charaxes pondoensis van Someren **stat. n.**

Charaxes ethalion pondoensis van Someren, 1967 : 285.

Charaxes phaeus Hewitson **stat. rev.**

Charaxes phaeus Hewitson, 1877 : 82.
Charaxes viola phaeus Hewitson; van Someren, 1969 : 136.

Charaxes vansoni van Someren **sp. n.**

Charaxes viola phaeus ♀ f. *vansoni* van Someren & Jackson, 1957 : 43.
Charaxes viola phaeus ♀ f. *vansoni* van Someren & Jackson; van Someren, 1969 : 137.

Charaxes variata van Someren **stat. n.**

Charaxes viola variata van Someren, 1969 : 144.

Charaxes loandae van Someren **stat. n.**

Charaxes viola loandae van Someren, 1969 : 144.

Charaxes brainei van Son **stat. n.**

Charaxes viola brainei van Son, 1966 : 3.
Charaxes viola brainei van Son ; van Someren, 1969 : 147.

SOME REPLACEMENT NAMES AND ADDITIONAL INFORMATION ON CERTAIN TAXA

Charaxes hansali kulalae **nom. n.**

Charaxes hansalii kulalensis van Someren, 1971 : 192.

The name *kulalae* is proposed to replace the name *kulalensis* van Someren in the combination *Charaxes hansalii kulalensis* van Someren, 1971 (Part VII), which is a junior primary homonym of *kulalensis* van Someren in the combination *Charaxes acuminatus kulalensis* van Someren, 1963 (Part I : 217).

Charaxes jahlusa kigomaensis **nom. n.**

Charaxes jahlusa kigoma van Someren, 1974 : 423.

The name *kigomaensis* is proposed to replace the name *kigoma* van Someren in the combination *Charaxes jahlusa kigoma* van Someren, 1974 (Part IX), which is a junior primary homonym of *kigoma* van Someren in the combination *Charaxes smaragdalis kigoma* van Someren, 1964 (Part II : 219).

Charaxes anticlea suna **nom. n.**

Charaxes anticlea reducta van Someren, 1971 : 214.

The name *suna* is proposed to replace the name *reducta* van Someren in the combination *Charaxes anticlea reducta* van Someren, 1971 (Part VII) which is a

junior primary homonym of *reducta* Rothschild in the combination *Charaxes xiphares reducta* Rothschild, 1929 (Part II : 189).

Charaxes ethalion nyasicus nom. n.

Charaxes ethalion nyasana van Someren 1967 : 286.

The name *nyasicus* is proposed to replace the name *nyasana* van Someren in the combination *Charaxes ethalion nyasana* van Someren, 1967 (Part IV) which is a junior primary homonym of *nyasana* Butler in the combination *Charaxes nyasana* Butler, 1895 (Part VII : 206).

Comparatively recent examination (May, 1967) of additional material indicates that this subspecies extends into S. W. Katanga (see Part IV : 300, Group 3, Region 2).

Charaxes dilutus miotoni nom. n.

Charaxes dilutus ngonga van Someren, 1974 : 442.

The name *miotoni* nom. n. is proposed to replace the name *ngonga* van Someren in the combination *Charaxes dilutus ngonga* van Someren, 1974 (Part IX), which is a potential junior primary homonym of *ngonga* van Someren in the combination *Charaxes berkeleyi* van Someren & Jackson ♀ form *ngonga* van Someren 1969 (Part V : 80).

Charaxes thysi Capronnier

Charaxes thysii Capronnier; van Someren, 1972 : 221.

Apparently, according to Dr A. H. B. Rydon (personal communication), there is a female specimen of this species in the Musée Royal de l'Afrique Centrale, Tervuren, Belgium.

Charaxes ludovici Rousseau-Decelle

Charaxes ludovici Rousseau-Decelle, 1933 : 271.

Mr Howarth has drawn my attention to the confusion regarding this name, which was based on a specimen from Lake Nyassa. Stichel (1939 : 452) placed this taxon as a subspecies of *Charaxes imperialis* Butler, and in Part VIII (p. 227) I wrongly assigned to this combination specimens taken by C. B. Cottrell at Mwinilunga, Zambia. Later in the same part (p. 262) I correctly placed the true *ludovici* from Lake Nyassa as a subspecies of *Charaxes xiphares*. The specimens taken by Cottrell in Zambia thus require a new name, as follows.

Charaxes imperialis lisomboensis subsp. n.

[*Charaxes imperialis ludovici* Rousseau-Decelle; van Someren, 1972 : 227. Misidentification.]

The name *lisomboensis* is proposed for the subspecies I misidentified in Part VIII as *Charaxes imperialis ludovici* Rousseau-Decelle.

The male and female specimens described and figured in 1972 are here designated the holotype and allotype respectively. It should be noted that the remarks made on p. 229 lines 14 and 15 about these specimens being atypical should be deleted and also the reference to Malawi on line 16 (see Corrigenda).

Holotype ♂, ZAMBIA: Mwinilunga, Lisombo River (*C. B. Cottrell*).

Allotype ♀, same data as holotype. Types in C. B. Cottrell collection to be deposited in BMNH.

RANGE. Zambia.

Charaxes superbus Schultze

Charaxes superbus Schultze; Plantrou, 1965 : 30 [♀].
Charaxes superbus Schultze; van Someren 1974 : 436.

When dealing with this species the reference to the description of the female by Monsieur J. Plantrou was unfortunately omitted.

Charaxes lydiae Holland

Charaxes lydiae Holland, 1917 : 18.
Charaxes lydiae Holland; Darge, 1973*a* : 51.
Charaxes lydiae Holland; van Someren, 1974 : 481.

Since writing Part 9 of these *Revisional Notes* Monsieur P. Darge has given an account of the discovery of this hitherto very rare species at Yaoundé, Cameroun in sufficient numbers to enable him to describe the variation within the species.

Charaxes eudoxus musakensis Darge

Charaxes eudoxus musakensis Darge, 1973*b* : 29.

This interesting subspecies has been described from Mt Cameroun in the Cameroun.

Charaxes richelmanni Röber

Charaxes richelmanni Röber; van Someren, 1970 : 236.
Charaxes richelmanni Röber; Darge, 1973*b* : 26 [♀].

Since this species was dealt with by me in 1970 the female has been described by Monsieur P. Darge from Mt Kala, Cameroun.

SYNOPTIC LIST OF AFRICAN *CHARAXES*, *EUXANTHE* AND *PALLA*

As the final sequence given below differs from the sequence in earlier parts (see p. 94), references are given in square brackets to the part number (Roman) and page numbers where each species is dealt with in the text.

CHARAXINAE Doherty

CHARAXES Ochsenheimer

Subgenus ***STONEHAMIA*** Cowan*

***varanes*-group**

1. ***varanes*** (Cramer) [IX : 476]
   - ***v. varanes*** (Cramer)
     - *austrinus* Rothschild
   - ***v. vologeses*** (Mabille)
     - *brachycauda* Le Cerf
   - ***v. bertrami*** Riley
   - ***v. defulvata*** Joicey & Talbot
2. ***fulvescens*** (Aurivillius) [I : 210]
   - ***f. fulvescens*** (Aurivillius)
   - ***f. monitor*** Rothschild
   - ***f. saperanus*** Poulton [not examined]
   - ***f. senegala*** van Someren
3. ***acuminatus*** Thurau [I : 211, V : 77]
   - ***a. acuminatus*** Thurau
   - ***a. vumba*** van Someren
   - ***a. mlanje*** van Someren
   - ***a. cottrelli*** van Someren
   - ***a. nyika*** van Someren
   - ***a. usambarensis*** van Someren
   - ***a. shimbanus*** van Someren
   - ***a. teitensis*** van Someren
   - ***a. oreas*** Talbot
   - ***a. kulalensis*** van Someren
   - ***a. stonehami*** Jeffery
   - ***a. kigezia*** van Someren
   - ***a. obudoensis*** van Someren
4. ***balfouri*** Butler [Not dealt with]
5. ***analava*** Ward [IX : 472]

Subgenus ***CHARAXES*** Ochsenheimer

***candiope*-group**

6. ***candiope*** (Godart) [IX : 467]
   - ***c. candiope*** (Godart)
     - *viridicostatus* Aurivillius
   - ***c. velox*** Grant
   - ***c. thomasius*** Staudinger & Schatz
7. ***antamboulou*** Lucas [IX : 472]
8. ***cowani*** Butler [IX : 471]

***cynthia*-group**

9. ***protoclea*** Feisthamel [VII : 202]
   - ***p. protoclea*** Feisthamel
     - *aeson* Herrich-Schäffer
   - ***p. protonothodes*** van Someren
     - var. *ablutus* Schultze
     - var. *maculata* Strand
     - var. *marginepunctata* Holland
     - var. *nigropunctata* Neustetter
     - var. *sinuosa* Rousseau-Decelle
   - ***p. nothodes*** Jordan
   - ***p. catenaria*** Rousseau-Decelle
     - var. *bifida* Rousseau-Decelle
     - var. *kafakumbana* Rousseau-Decelle
     - var. *parcepicta* Rousseau-Decelle
     - var. *mutschatschana* Rousseau-Decelle
   - ***p. azota*** (Hewitson)
     - *calliclea* Smith
     - *nyasana* Butler
     - f. *aequidistans* Gaede
10. ***boueti*** Feisthamel [VI : 224]
    - ***b. boueti*** Feisthamel
    - ***b. ghanaensis*** Rousseau-Decelle & Johnson
    - ***b. macclouni*** Butler
      - *flavescens* Lanz
    - ***b. rectans*** Rothschild & Jordan
    - ***b. alticola*** Grunberg
11. ***lasti*** Grose-Smith [VI : 232]
    - *centralis* Neustetter
12. ***cynthia*** Butler [V : 150]
    - ***c. cynthia*** Butler
      - *lysianassa* Westwood
      - *guineensis* Le Moult
    - ***c. cameroonensis*** van Someren
      - f. *albofascia* Le Cerf
      - ab. *cizeyi* Lathy
      - f. *angusticlavius* Rousseau-Decelle
    - ***c. kinduana*** Le Cerf
      - *mawamba* Grunberg
    - ***c. propinqua*** van Someren
    - ***c. parvicaudatus*** Lathy

* The compact group *varanes-fulvescens-acuminatus*, usually placed in the genus *Charaxes*, was separated off by Stoneham under the name *Hadrodontes* but, as Cowan (1968) points out, the name is unavailable because no type-species was designated as required by Article 13 (b) of the *Code*. Cowan proposed *Stonehamia* as an alternative name, citing *Papilio varanes* Cramer as the type-species; the name can be used as a subgenus.

*c. **sabulosus*** Talbot
f. *aurantiaca* Rousseau-Decelle
*c. **mukuyu*** van Someren

lucretius-group

13. ***lucretius*** (Cramer) [VII : 194]
*l. **lucretius*** (Cramer)
lucida Le Cerf
*l. **intermedius*** van Someren
albofascia Le Cerf
caliginosa Le Cerf
*l. **maximus*** van Someren
babingtoni Stoneham
*l. **lemosi*** Joicey & Talbot
14. ***octavus*** Minig [X : 103]
patergodarti Neidhoefer
15. ***odysseus*** Staudinger [VII : 199]
16. ***lactetinctus*** Karsch [VIII : 232, IX : 483]
*l. **lactetinctus*** Karsch
*l. **busogus*** van Someren
f. *jacksonianus* van Someren
*l. **ungemachi*** Le Cerf
f. *brunneus* Carpenter

jasius-group

17. ***jasius*** (Linnaeus) [I : 201]
*j. **jasius*** (Linnaeus)
*j. **epijasius*** Reiche
var. *maculatus* Suffert
ab. *murina* Le Cerf
ab. *feisthameli* Le Cerf
var. *melas* van Someren
f. *liberiae* Le Cerf
*j. **harrisoni*** Sharpe
f. *harrisoni* Sharpe
f. *saturnalis* van Someren
*j. **pagenstecheri*** Poulton
*j. **saturnus*** Butler
var. *laticinctus* Butler
*j. **brunnescens*** Poulton
18. ***pelias*** (Cramer) [I : 205]
19. ***hansali*** Felder [VII : 190]
*h. **hansali*** Felder
*h. **baringana*** Rothschild
*h. **kulalae*** van Someren
kulalensis van Someren
*h. **arabica*** Riley
20. ***castor*** (Cramer) [VII : 184]
*c. **castor*** (Cramer)
ab. *aginga* Stoneham
ab. *antiqua* Le Cerf
ab. *flavimarginalis* Stoneham
*c. **flavifasciatus*** Butler
orientalis Lanz
var. *reimeri* Rothschild
*c. **arthuri*** van Someren
*c. **comoranus*** Rothschild
21. ***brutus*** (Cramer) [VI : 214]
*b. **brutus*** (Cramer)
*b. **angustus*** Rothschild
*b. **junius*** Oberthür
*b. **somalicus*** Rothschild
*b. **alcyone*** Stoneham
*b. **natalensis*** Staudinger & Schatz
*b. **antiquus*** Joicey & Talbot
22. ***andara*** Ward [VI : 221]
23. ***ansorgei*** Rothschild [IV : 303]
*a. **ansorgei*** Rothschild
*a. **jacksoni*** Poulton
*a. **ruandana*** Talbot
*a. **kungwensis*** van Someren
*a. **levicki*** Poulton
*a. **kilimanjarica*** van Someren
*a. **rydoni*** van Someren
24. ***phoebus*** Butler [VI : 212]
25. ***pollux*** (Cramer) [IV : 311]
*p. **pollux*** (Cramer)
ab. *subalbescens* Hall
var. *ongeus* Stoneham
var. *bungense* Stoneham
*p. **geminus*** Rothschild
zingense Stoneham
*p. **maua*** van Someren
*p. **gazanus*** van Someren
26. ***druceanus*** Butler [I : 228]
*d. **druceanus*** Butler
*d. **tectonis*** Rothschild
*d. **obscura*** Rebel
kivuanus Jordan
cryanae Le Cerf
*d. **septentrionalis*** Lathy
var. *alicea* Stoneham
var. *lugari* van Someren
*d. **teita*** van Someren
*d. **proximans*** Joicey & Talbot
*d. **stevensoni*** van Someren
*d. **entabeni*** van Someren
*d. **moerens*** Jordan
*d. **cinadon*** Hewitson
27. ***phraortes*** Doubleday [IX : 473]
28. ***andranodorus*** Mabille [IX : 474]
29. ***eudoxus*** (Drury) [VI : 238, X : 110]
*e. **eudoxus*** (Drury)
*e. **mechowi*** Rothschild
*e. **theresae*** Le Cerf
*e. **katerae*** Carpenter
*e. **cabacus*** Jordan
*e. **amaurus*** Poulton
f. *nzoia* van Someren

e. lucyae van Someren
e. zambiae van Someren
30. ***richelmanni*** Röber [VI : 236]

***tiridates*-group**

31. ***violetta*** Grose-Smith [III : 50]
v. violetta Grose-Smith
melloni Fox
v. maritima van Someren
v. meru van Someren
32. ***numenes*** (Hewitson) [VIII : 241]
n. numenes (Hewitson)
n. intermediate cline
f. *laticatena* Le Cerf
n. aequatorialis van Someren
f. *obsolescens* Stoneham
n. neumanni Rothschild
33. ***fuscus*** Plantrou [VIII : 240]
34. ***tiridates*** (Cramer) [VIII : 235]
t. tiridates (Cramer)
marica (Fabricius)
t. intermediate cline
var. *tristis* Schultze
var. *angusticaudatus* Röber
var. *purpurina* Rousseau-Decelle
var. *subcaerulea* Storace
t. tiridatinus Röber
ab. *conjuncta* Storace
t. marginatus Rothschild
35. ***bipunctatus*** Rothschild [VIII : 246]
b. bipunctatus Rothschild
johnsoni Rousseau-Decelle
b. intermediate cline
b. ugandensis van Someren
36. ***mixtus*** Rothschild [VIII : 250]
37. ***bubastis*** Schultze [VIII : 251]
38. ***albimaculatus*** van Someren [VIII : 252]
39. ***barnsi*** Joicey & Talbot [VIII : 253]
40. ***bohemani*** Felder [VII : 208]
41. ***schoutedeni*** Ghesquiére [II : 220, V : 79]
42. ***montieri*** Staudinger [VII : 200]
43. ***overlaeti*** Schouteden [Not dealt with in text but of doubtful affinity.]
44. ***smaragdalis*** Butler [II : 207]
s. smaragdalis Butler
f. *beni* van Someren
s. butleri Rothschild
s. leopoldi Ghesquière
s. metu van Someren
s. caerulea Carpenter & Jackson
s. toro van Someren
s. kagera van Someren
s. elgonae van Someren
s. homonymus Bryk
orientalis Joicey & Talbot
s. kigoma van Someren
45. ***xiphares*** (Cramer) [II : 188, V : 82, VIII : 259]
x. xiphares (Cramer)
f. *occidentalis* van Son
x. thyestes (Stoll)
reducta Rothschild
elatias Jordan
x. penningtoni van Son
♀ f. *luminosa* van Son
x. draconis Jordan
♀ f. *candida* van Son
x. kenwayi Poulton
♀ f. *lutea* van Son
x. bavenda van Son
♀ f. *ochreomacula* van Son
♀ f. *cyanescens* van Son
x. vumbui van Son
x. woodi van Someren
x. brevicaudatus Schultze
x. burgessi van Son
x. maudei Joicey & Talbot
x. kulal van Someren
x. desmondi van Someren
x. wernickei Joicey & Talbot
x. kilimensis van Someren
x. ludovici Rousseau-Decelle [X : 109]
46*. ***nandina*** Rothschild & Jordan [II : 203]
47. ***imperialis*** Butler [VIII : 223]
i. imperialis Butler
i. albipunctus Joicey & Talbot
i. paulianus Rousseau-Decelle
i. ugandicus van Someren
f. *caerulipunctus* van Someren
i. lisomboensis van Someren
[*ludovici* Rousseau-Decelle **sensu** van Someren]
48. ***ameliae*** Doumet [VIII : 228]
a. ameliae Doumet
regius Aurivillius
a. victoriae van Someren
a. amelina Joicey & Talbot
49. ***pythodoris*** Hewitson [I : 222, X : 105]
p. pythodoris Hewitson
p. occidens van Someren
p. nesaea Grose-Smith
p. pallida Carpenter
p. davidi Plantrou

***hadrianus*-group**

50. ***hadrianus*** Ward [VIII : 221]

* See p. 127 for *cithaeron* Felder, inadvertently omitted from this Synoptic List.

h. hadrianus Ward
dux Staudinger & Schatz
gabonica Crowley
h. lecerfi Lathy
nobilis-group
51. ***nobilis*** Druce [IX : 433]
n. nobilis Druce
agabo Distant
homerus Staudinger
n. rosemariae Rousseau-Decelle
n. claudei Le Moult
52. ***superbus*** Schultze [IX : 436]
53. ***acraeoides*** Druce [IX : 429]
54. ***fournierae*** Le Cerf
f. fournierae Le Cerf
f. kigeziensis Howarth
55. ***lydiae*** Holland [IX : 481]
zoolina-group
56. ***kahldeni*** Homeyer & Dewitz [IX : 450]
apicalis Röber
f. *homeyeri* Homeyer & Dewitz
f. *bellus* Niepelt
57. ***zoolina*** (Westwood) [IX : 444]
z. zoolina (Westwood)
f. *neanthes* (Hewitson)
f. *homochrous* Le Cerf
f. *obscuratus* Suffert
z. mafugensis Jackson
z. ehmckei Homeyer & Dewitz
f. *phanera* Jordan
z. betsimisaraka Lucas
relatus Butler
firmus Le Cerf
f. *betanimena* Lucas
andriba Ward
freyi (Branczik)
lambertoni Lathy
eupale-group
58. ***eupale*** (Drury) [IX : 438]
e. eupale (Drury)
amasia (Fabricius)
e. latimargo Joicey & Talbot
schultzi Röber
59. ***subornatus*** Schultze [IX : 440]
s. subornatus Schultze
s. minor Joicey & Talbot
60. ***dilutus*** Rothschild [IX : 441]
d. dilutus Rothschild
d. miotoni van Someren
ngonga van Someren
61. ***montis*** Jackson [IX : 442]
jahlusa-group
62. ***jahlusa*** (Trimen) [IX : 418]
j. jahlusa (Trimen)
j. argynnides Westwood
j. kigomaensis van Someren
kigoma van Someren
j. kenyensis Joicey & Talbot
f. *pallene* van Someren
f. transitional to ***ganalensis***
j. ganalensis Carpenter
pleione-group
63. ***pleione*** (Godart) [IX : 427]
p. pleione (Godart)
lichas (Doubleday)
f. *othello* Suffert
f. *pallida* Lathy
p. bebra Rothschild
64. ***paphianus*** Ward [IX : 425]
p. paphianus Ward
falcata (Butler)
hamulosa (Weymer)
p. subpallida Joicey & Talbot
zingha-group
65. ***zingha*** (Stoll) [IX : 466]
berenice (Drury)
etesipe-group
66. ***etesipe*** (Godart) [III : 59]
e. etesipe (Godart)
etheta (Godart)
♀ f. *castoroides* Poulton
♀ f. *caeruleotincta* Carpenter
e. abyssinicus Rothschild
e. patrizii Storace
e. tavetensis Rothschild
e. gordoni van Someren
e. pemba van Someren
67. ***penricei*** Rothschild [III : 65, V : 80]
p. penricei Rothschild
ab. *peculiaris* Lathy
ab. *flavus* Lathy
p. dealbata Joicey & Talbot
p. tanganyikae van Someren
♀ f. *caerulescens* van Someren
68. ***cacuthis*** Hewitson [III : 68]
69. ***paradoxa*** Lathy [III : 67]
70. ***achaemenes*** Felder [VI : 207]
a. achaemenes Felder
f. *fasciatus* Suffert
a. monticola Joicey & Talbot
f. *erythraea* Storace
a. cline ***monticola*** x ***atlantica***
a. atlantica van Someren
jocaste Butler
etheocles-group
71. ***anticlea*** (Drury) [VII : 209]
a. anticlea (Drury)
horatius (Fabricius)

a. proadusta van Someren
a. cline ***proadusta* x *adusta***
a. adusta Rothschild
a. suna van Someren
reducta van Someren

72. ***baumanni*** Rogenhofer [VII : 217, IX : 482]
b. baumanni Rogenhofer
b. tenuis van Someren
b. interposita van Someren
b. bwamba van Someren
b. didingensis van Someren
b. whytei Butler
selous Trimen
b. bamptoni van Someren
73. ***opinatus*** Heron [VI : 202]
74. ***thysi*** Capronnier [VIII : 219]
75. ***hildebrandti*** Dewitz [VIII : 218] [X : 105]
h. hildebrandti Dewitz
talagugae Holland
galba Distant
h. gillesi Plantrou
h. katangensis Talbot
76. ***blanda*** Rothschild [VI : 205]
b. blanda Rothschild
b. kenyae Poulton
77. ***kheili*** Staudinger [V : 94]
78. ***northcotti*** Rothschild [V : 96]
79. ***guderiana*** (Dewitz) [VI : 199]
g. guderiana (Dewitz)
tanganika Robbe
g. rabaiensis Poulton
80. ***pembanus*** Jordan [III : 70]
81. ***usambarae*** van Someren & Jackson [III : 73]
f. *collinsi* van Someren
82. ***contrarius*** Weymer [V : 119]
subargentea van Someren & Rogers
f. *conjugens* van Someren
83. ***petersi*** van Someren [V : 121]
84. ***marieps*** van Someren & Jackson [III : 80]
85. ***karkloof*** van Someren [III : 81]
k. karkloof van Someren
k. capensis van Someren
86. ***martini*** van Someren [III : 96, IX : 483]
87. ***gallagheri*** van Son [III : 94]
88. ***alpinus*** van Someren & Jackson [III : 84]
89. ***nyikensis*** van Someren [X : 107]
90. ***maccleeryi*** van Someren [VIII : 257]
91. ***grahamei*** van Someren [V : 115]
♀ f. *lacteata* van Someren
92. ***aubyni*** van Someren & Jackson [III : 77]
a. aubyni van Someren & Jackson
a. ecketti van Someren & Jackson
a. australis van Someren & Jackson
93. ***chepalungu*** van Someren [V : 90]
94. ***virilis*** Rothschild [V : 92]
lenis Jordan
95. ***fulgurata*** Aurivillius [III : 92]
♀ f. *lunigera* Rothschild & Jordan
♀ f. *mima* Riley
96. ***berkeleyi*** van Someren & Jackson [V : 80]
b. berkeleyi van Someren & Jackson
♀ f. *ngonga* van Someren
b. masaba van Someren
97. ***baileyi*** van Someren [V : 122]
♀ f. *pseudocarpenteri* van Someren
98. ***manica*** Trimen [III : 86, VIII : 255]
m. manica Trimen
m. subrubidus van Someren
♀ f. *atribasis* van Someren
♀ f. *aubergeri* van Someren
♀ f. *pseudosmaragdalis* van Someren & Jackson
99. ***pseudophaeus*** van Someren [X : 107]
100. ***chintechi*** van Someren [X : 107]
101. ***protomanica*** van Someren [X : 107]
102. ***ethalion*** (Boisduval) [IV : 281]
Group 1.
e. ethalion (Boisduval)
♀ f. *ethalion* (Boisduval)
♀ f. *swynnertoni* Poulton
♀ f. *rosae* Butler
♀ f. *aurantimacula* van Someren
Group 2. See No. 103 *pondoensis*
Group 3.
e. nyasicus van Someren
nyasana van Someren
♀ f. *nyasicus* van Someren
nyasana van Someren
♀ f. *swynnertoni* pattern
♀ f. *cithaeronoides* van Someren
♀ f. *suppressa* van Someren
♀ f. *demaculata* van Someren
♀ f. *imitans* van Someren
Group 4.
e. nyanzae van Someren
Region 1
♀ f. *ethalion* pattern
♀ f. *howardi* van Someren & Jackson

Region 2
♀ f. *ethalion* pattern
Region 3
♀ f. *ethalion* pattern
♀ f. *rosae* pattern
Region 4
♀ f. *ethalion* pattern
Group 5.
e. littoralis van Someren
Region 1
♀ f. *ethalion* pattern
♀ f. *rosae* pattern
Region 2
♀ f. *ethalion* pattern
♀ f. *rosae* pattern
♀ f. *swynnertoni* pattern
e. intergrading cline between Groups 3 and 5
♀ f. *ethalion* pattern
♀ f. *rosae* pattern
♀ f. *swynnertoni* pattern
Group 6.
e. kikuyuensis van Someren
♀ f. *ethalion* pattern
♀ f. *rosae* pattern
♀ f. *swynnertoni* pattern
Group 7.
e. marsabitensis van Someren
♀ f. *swynnertoni* pattern

103. ***pondoensis*** van Someren [X : 108]

104. ***etheocles*** (Cramer) [V : 90]
Region 1
e. etheocles (Cramer)
♀ f. *etheocles* (Cramer)
♀ f. *alladinis* Butler
♀ f. *fulgens* Rothschild
♀ f. *regalis* Rothschild
♂ f. *ephyra* Godart
hollandi Butler
♂ f. *carteri* Butler
♂ f. *catochrous* Staudinger
Region 2
e. biinclinata van Someren
♀ f. *etheocles* pattern (two vars.]
♀ f. *ochracea* pattern
♀ f. *alladinis* pattern
♀ f. *regalis* pattern
♂ f. *ephyra* pattern
♂ f. *carteri* pattern
♂ f. *catochrous* pattern
Region 3
e. ochracea van Someren & Jackson
♀ f. *ochracea* Rothschild
♀ f. *ochreata* van Someren & Jackson (= *alladinis* × *regalis*)
♀ f. *seriata* Rothschild
♂ f. *violacea* Rothschild
Region 4
e. carpenteri van Someren & Jackson
f. *carpenteri* Poulton
♀ f. *carpenteri* Poulton and vars.
♀ f. *pallidimacula* van Someren & Jackson and vars.
♂ f. *carpenteri* van Someren & Jackson
♂ f. near *carteri* Butler
♂ f. near *catochrous* Staudinger
Region 5
e. evansi van Someren & Jackson
f. *evansi* van Someren & Rogers
♀ f. *evansi* van Someren & Jackson and vars.
♀ f. *conjuncta* van Someren & Jackson
♂ f. *evansi* van Someren & Jackson (near *carteri*) and vars.

105. ***viola*** Butler [V : 125]
v. viola Butler
v. picta van Someren & Jackson
♀ f. *vansomereni* Poulton
v. suk Carpenter & Jackson
♀ f. *kirkoides* Carpenter & Jackson
♀ f. *achaemenesopsis* Carpenter & Jackson
♀ f. *intermedia* Carpenter & Jackson
♀ f. *albifascia* Poulton
v. daria Rothschild
v. chanleri Holland
v. kirki Butler
♀ f. *kirki* Butler
♀ f. *albifascia* Poulton
♀ f. *rogersi* Poulton
♀ f. *handari* Poulton
v. diversiforma van Someren & Jackson
♀ f. *diversiforma* van Someren & Jackson
♀ f. *purpurea* van Someren & Jackson
♀ f. *viridicaerulea* van Someren & Jackson
♀ f. *caerulescens* van Someren & Jackson
♀ f. *albocaerulea* van Someren & Jackson

♀ f. *albimacula* van Someren & Jackson
♀ f. *ochremaculata* van Someren & Jackson
♀ f. *cupreopurpurea* van Someren & Jackson
v. fagini Storace
106. ***phaeus*** Hewitson [X : 108]
♀ f. *phaeus* Hewitson
♀ f. *corydoni* Rothschild
107. ***vansoni*** van Someren [X : 108]
♀ f. *vansoni* van Someren & Jackson
108. ***variata*** van Someren [X : 108]
♀ f. *variata* van Someren
♀ f. *tricolor* van Someren
♀ f. *rosella* van Someren
♀ f. *cottrelli* van Someren
109. ***loandae*** van Someren [X : 108]
♀ f. *loandae* van Someren
♀ f. *primitiva* van Someren
♀ f. *basiviridis* van Someren
♀ f. *violitincta* van Someren
♀ f. *vansonoides* van Someren
♀ f. *protokirki* van Someren
♀ f. *instabilis* van Someren
110. ***brainei*** van Son [X : 108]
111. ***cedreatis*** Hewitson [V : 85]
lutacea Rothschild
♀ f. *cedreatis* Hewitson
♀ f. *protocedreatis* Poulton
♀ f. *inexpectata* van Someren
♀ f. *vetula* Rothschild
♀ f. *pseudosmaragdalis* van Someren & Jackson
♀ f. *dewitzi* Butler
112. ***mafuga*** van Someren [V : 97, X : 106]
nichetes-group
113. ***nichetes*** Grose-Smith [IX : 463]
n. nichetes Grose-Smith
hamatus Dewitz
ogovensis Holland
n. leoninus Butler
n. pantherinus Rousseau-Decelle
laodice-group
114. ***laodice*** (Drury) [IX : 460]
nesiope (Hewitson)
lycurgus (Fabricius)
115. ***zelica*** Butler [IX : 457]
z. zelica Butler
z. depuncta Joicey & Talbot
z. toyoshimai Carcasson
116. ***porthos*** Grose-Smith [IX : 454]
p. porthos Grose-Smith
midas Staudinger
p. katangae Rousseau-Decelle
p. dummeri Joicey & Talbot
p. gallayi van Someren
117. ***dunkeli*** Röber [IX : 461]
118. ***doubledayi*** Aurivillius [IX : 454]
119. ***mycerina*** (Godart) [IX : 452]
nausicaa Staudinger

EUXANTHINAE Rydon

EUXANTHE Hübner

Subgenus ***EUXANTHE*** Hübner

1. ***eurinome*** (Cramer) [X: 79]
e. eurinome (Cramer)
♀ f. *johnsoni* Howarth
e. ansellica Butler
f. *burgeoni* Le Cerf
var. *radiata* van Someren & Rogers
e. celadon Le Cerf
e. elgonae van Someren
e. birbirica Ungemach
2. ***crossleyi*** (Ward) [X : 83]
c. crossleyi (Ward)
f. *niepelti* Bryk
c. ansorgei Rothschild & Jordan
f. *babbingtoni* Stoneham
c. magnifica Rebel
intermedia Joicey
c. claudiae Rousseau-Decelle
3. ***wakefieldi*** (Ward) [X : 85]
f. ***rubiginea*** Le Cerf
4. ***madagascariensis*** (Lucas) [X : 86]
amakosa (Boisduval)

Subgenus ***HYPOMELAENA*** Aurivillius

5. ***trajanus*** (Ward) [X : 87]
   t. trajanus (Ward)
      schatzi Staudinger
   t. vansomereni Poulton
   t. gabonicus Le Cerf
   t. antonius Rousseau-Decelle
   t. nigeriae van Someren
6. ***tiberius*** Grose-Smith [X : 90]
   t. tiberius (Grose-Smith)
      f. *tiberiella* Strand
   t. meruensis van Someren

PALLINAE Rydon

PALLA Hübner

1. ***publius*** Staudinger [X : 75]
   p. publius Staudinger
      rectifascia Weymer
      f. *rectifascia* Weymer
      f. *moderata* Gaede
   p. centralis van Someren
   p. kigoma van Someren
2. ***ussheri*** (Butler) [X : 70]
   u. ussheri (Butler)
      ♀ f. *ferruginea* Schultze
      ♀ f. *dobelli* Hall
   u. interposita Joicey & Talbot
3. ***decius*** (Cramer) [X : 69]
      f. *sagittarius* Rousseau-Decelle
4. ***violinitens*** (Crowley) [X : 73]
   v. violinitens (Crowley)
   v. coniger (Butler) cline
   v. bwamba van Someren

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APPENDIX

The following entry was inadvertently omitted from p. 113 of the Synoptic List.

45a ***cithaeron*** Felder [II : 225, X : 105]
c. cithaeron Felder
ab. *whitei* van Someren
c. joanae van Someren
c. nyasae van Someren
ab. *griseus* Schultze
c. kennethi Poulton
c. nairobicus van Son

INDEX TO PARTS I-X

This is a complete index to the specific and infraspecific names in all ten parts of the series. The Roman numbers refer to the parts. Synonyms are in *italics*.

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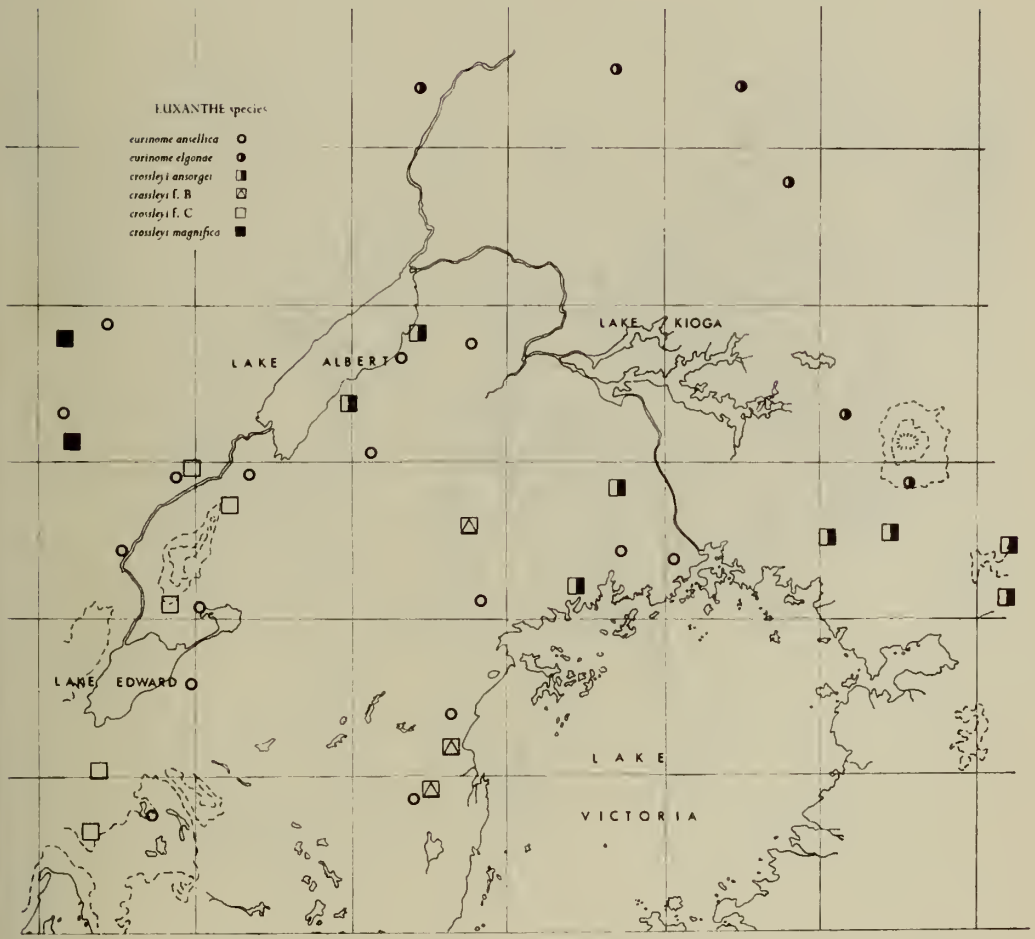
EUXANTHE species
eurinome ansellica
eurinome elgonae
crossleyi ansorgei
crossleyi f. B
crossleyi f. C
crossleyi magnifica
LAKE ALBERT
LAKE KIOGA
LAKE EDWARD
LAKE VICTORIA

MAP 1.


PALLA species
decius
violinitens
violinitens bwamba
ussheri ussheri
ussheri interposita
ussheri dobelli
publius publius
publius centralis
publius kigoma
1,000 km

Map 2.


EUXANTHE species
eurinome eurinome
eurinome ansellica
eurinome celedon
eurinome elgonae
eurinome barbarica
crossleyi crossleyi
crossleyi ansorgei
crossleyi magnifica
crossleyi claudei
madagascariensis
wakefieldi
1000 km

Map 3.

PLATE 1

Palla

Upper and undersides

FIGS 1, 2. *decius* (Cramer), ♂ (Sierra Leone: Port Lokko). Photos BMNH.
FIGS 3, 4. *decius* (Cramer), ♀ (Sierra Leone). Photos BMNH.
FIGS 5, 6. *ussheri ussheri* (Butler), ♂ Type (Gold Coast [Ghana]). Photos BMNH No 50108–9.
FIG. 7. *ussheri ussheri* (Butler), ♂ (Gold Coast [Ghana]).
FIG. 8. *ussheri ussheri* (Butler), ♀ (Ivory Coast).

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PLATE 2

Palla ussheri (Butler)

Upper & undersides

FIG. 9. *ussheri* ♂ (Togo).
FIG. 10. *ussheri* ♀ (Togo).
FIG. 11. *ussheri* ♂ form transitional to *interposita* Joicey & Talbot (East Congo: Epulu).
FIG. 12. *ussheri* ♀ form transitional to *interposita* Joicey & Talbot (East Congo: Epulu).
FIG. 13. *ussheri* ♀ intermediate form (East Congo : Epulu).
FIG. 14. *ussheri* ♀ dark var. (Moyen Congo [Congo: Brazzaville]).
FIG. 15. *ussheri* ♀ intermediate form (Moyen Congo [Congo: Brazzaville]).
FIG. 16. *ussheri* ♂ transitional to *interposita* Joicey & Talbot, resembling ♂ *interposita* of Uganda (East Congo : Beni).


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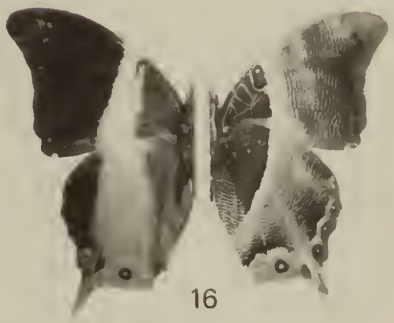
16

PLATE 3

Palla ussheri (Butler)

Upper & undersides

FIG. 17. *ussheri* ♂ transitional to *interposita* retaining facies of the more western ♂ (East Congo: Beni).

FIG. 18. *interposita* Joicey & Talbot, ♂ (East Uganda).

FIGS 19, 20. *ussheri* ♀ form *dobelli* Hall, Type (Cameroons [Cameroun]: Bitje, Ja River). Photos BMNH Nos 50114–5.

FIGS 21, 22. *interposita* Joicey & Talbot, ♂ Type (Uganda: Mabira Forest). Photos BMNH Nos 50110–1.

FIGS 23, 24. *interposita* Joicey & Talbot, ♀ (Uganda: Jinja). Photos BMNH Nos 50112–3.


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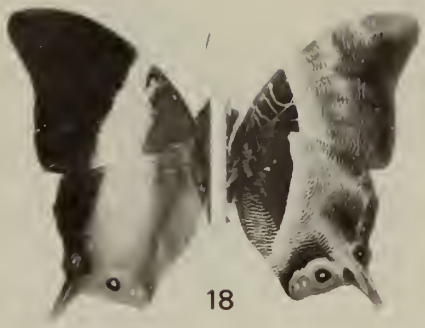
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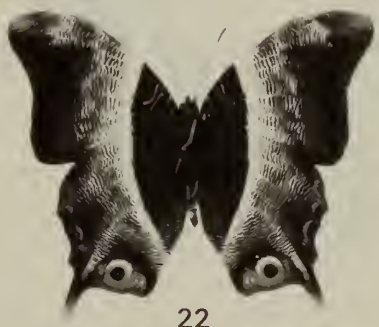
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PLATE 4

Palla

Upper & undersides

FIG. 25. *ussheri interposita* Joicey & Talbot, ♀ (East Uganda).
FIG. 26. *violinitens violinitens* (Crowley), ♂ (Ivory Coast).
FIG. 27. *violinitens violinitens* (Crowley), ♀ (Ivory Coast).
FIG. 28. *violinitens* cline to *coniger* (Butler), ♂ (Congo: Kasai).
FIG. 29. *violinitens* cline to *coniger* (Butler), ♀ (Congo: Kasai).
FIG. 30. *violinitens* cline to *coniger* (Butler), ♀ (Central African Republic : Bangui) (*J. Plantrou*).
FIGS 31, 32. *violinitens* cline to *coniger* (Butler), ♀ (Moyen Congo [Congo: Brazzaville]) (Jackson coll.).

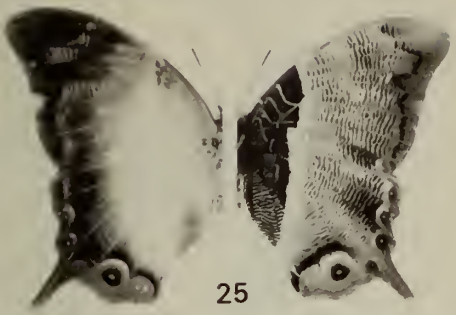
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PLATE 5

Palla

Upper & undersides

FIG. 33. *violinitens* cline to *coniger* (Butler), ♀ (Moyen Congo [Congo: Brazzaville]).
FIG. 34. *violinitens* ♂ transitional to *bwamba* subsp. n. (Eastern Congo: Epulu).
FIG. 35. *violinitens bwamba* subsp. n., ♂ holotype (W. Uganda: Bwamba Valley, v. 1954) (*van Someren*).
FIG. 36. *violinitens bwamba* subsp. n., ♂ paratype (W. Uganda: Bwamba Valley).
FIG. 37. *violinitens bwamba* subsp. n., ♀ allotype (W. Uganda: Bwamba Valley, vii. 1942) (*van Someren*).
FIG. 38. *publius publius* Staudinger, ♂ (Nigeria: Old Calabar).
FIG. 39. *publius publius* Staudinger, ♀ (Ghana: Juaso).
FIG. 40. *publius centralis* subsp. n., ♂ paratype (Moyen Congo [Congo: Brazzaville]) (Jackson coll.).

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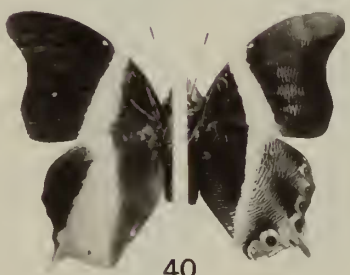

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PLATE 6

Palla publius Staudinger

Upper & undersides

FIGS 41, 42. *centralis* subsp. n., ♂ holotype (Afriq. Occid: Station Kamerun).

FIGS 43, 44. *centralis* subsp. n., ♀ allotype (Cameroun).

FIG. 45. *centralis* subsp. n., ♂ paratype (Moyen Congo [Congo: Brazzaville]) (Jackson coll.).

FIG. 46. *kigoma* subsp. n., ♂ holotype (Tanzania: Kigoma, Kabogo, 28.xi.1961) (*Japanese Primate Exped.*).

FIGS 47, 48. *kigoma* subsp. n., ♂ paratype (Tanzania: Kigoma, Kabogo, 28.xi.1961) (*Japanese Primate Exped.*).

FIGS 49, 50. *publius* f. *moderata* Gaede, ♂ (Congo: Kapulumbo, Kasai).

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PLATE 7

Euxanthe eurinome (Cramer)

Upper & undersides

FIG. 51. *eurinome*, ♂ (Sierra Leone).
FIG. 52. *eurinome*, ♀ (Sierra Leone).
FIG. 53, 54. *eurinome*, ♀ (Ivory Coast).
FIGS 55, 56. *ansellica* (Butler), ♂ type (Angola: Kinsembo). Photos BMNH Nos 51244–5.
FIG. 57. *ansellica* var. *radiata* van Someren & Rogers (C. Uganda: Mawakota).
FIG. 58. *ansellica* (Butler), ♀ (Uganda: Bwamba Valley).

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PLATE 8

Euxanthe eurinome (Cramer)

Upper & undersides

FIG. 59. *ansellica* (Butler), ♂ (Uganda: Toro, Mpanga Forest).
FIG. 60. *ansellica* (Butler), ♂ (Southern Cameroun).
FIG. 61. *ansellica* (Butler), ♂ (Uganda: Bwamba Valley).
FIG. 62. *ansellica* (Butler), ♀ (Uganda: Toro, Mpanga Forest).
FIG. 63. *ansellica* (Butler), ♂ (Uganda: Bwamba Valley).
FIG. 64. *ansellica* f. *burgeoni* Le Cerf, ♂ holotype (E. Congo: Kindu). Photos MNHN, Paris. No underside figured.
FIG. 65. *celadon* Le Cerf, ♂ holotype (Gabun). Photo MNHN, Paris. No underside figured.


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PLATE 9

Euxanthe eurinome (Cramer)

Upper & undersides

FIGS 66, 67. *elgonae* subsp. n. ♂ paratypes (Kenya: Mara District, Gori River Forest).
FIG. 68. *elgonae* subsp. n. ♀ paratype (Kenya: S.E. Mt Elgon, Trans Nzoia).
FIG. 69. *elgonae* subsp. n. ♂ paratype (Kenya: S.E. Mt Elgon, Trans Nzoia).
FIG. 70, 72. *elgonae* subsp. n. ♂ holotype (Kenya: S.E. Mt Elgon, Trans Nzoia).
FIG. 71, 73. *elgonae* subsp. n., ♀ allotype (Kenya: S.E. Mt Elgon, Trans Nzoia).


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PLATE 10

Euxanthe crossleyi (Ward)

Upper & undersides

FIG. 74. *crossleyi* ♂ (E. Congo: Beni).
FIG. 75. *crossleyi* ♂ (Moyen Congo [Congo: Brazzaville]).
FIGS 76, 77. *crossleyi* ♂ type (Cameroun). Photos BMNH Nos 50116–7.
FIGS 78, 79. *crossleyi* ♀ type (Cameroun). Photos BMNH Nos 50118–9.
FIG. 80. *crossleyi* ♀ (Moyen Congo [Congo: Brazzaville]).

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PLATE 11

Euxanthe crossleyi (Ward)

Upper & undersides

FIGS 81, 83. *ansorgei* Rothschild & Jordan, ♂ (Uganda: Masaka District, west side of Lake Victoria north of Kagera River, Katera Forest).

FIG. 82. *ansorgei* Rothschild & Jordan, ♂ (Uganda: Masaka District, west side of Lake Victoria north of Kagera River, Katera Forest). Note abnormal venation of hindwing.

FIG. 84. *ansorgei* Rothschild & Jordan, ♂ (Tanzania: Kigoma District).

FIG. 85. *ansorgei* Rothschild & Jordan, ♂ (Uganda: Kigezi District, Kayonza, lower Impenetrable Forest).

FIG. 86. *ansorgei* Rothschild & Jordan, ♂ (Kenya: Nandi-Elgon Forests, Kakamega).

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PLATE 12

Euxanthe crossleyi (Ward)

Upper & undersides

Fig. 87. *ansorgei* Rothschild & Jordan, ♂ (Uganda: Kigezi District, Kayonza, lower Impenetrable Forest).

Fig. 88. *ansorgei* Rothschild & Jordan, ♀ (Kenya: Nandi-Elgon Forests, Kakamega).

Fig. 89. *ansorgei* ♀ transitional to *magnifica* Rebel (Uganda: Masaka District, Katera Forest).

Figs 90, 91. *magnifica* Rebel, ♂ holotype (E. Congo: Nawambi-Irumu). Photos BMNH Nos 51246–7.

Fig. 92. *magnifica* Rebel, ♂ (Congo: Middle Lowa Valley, Walikali).

Fig. 93. *ansorgei* ♀ transitional to *magnifica* Rebel (Uganda: Masaka District, Katera Forest).


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PLATE 13

Euxanthe

Upper & undersides

FIGS 94, 95. *wakefieldi* (Ward), ♀ type (E. Africa: Ribe). Photos BMNH Nos 51256–7.
FIGS 96, 97. *wakefieldi* (Ward), ♀ (Kenya: coastal forests).
FIGS 98–100. *wakefieldi* (Ward), ♂ (Kenya: coastal forests).
FIG. 101. *madagascariensis* (Lucas), ♂ (Madagascar).

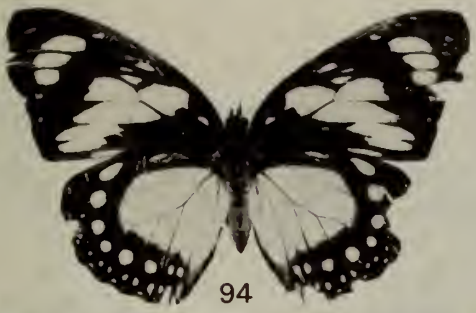
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PLATE 14

Euxanthe

Upper & undersides

FIG. 102. *madagascariensis* (Lucas), ♀ (Madagascar).
FIG. 103. *trajanus trajanus* (Ward), ♂ (Kamerun [Cameroun]).
FIG. 104. *trajanus trajanus* (Ward), ♀ (Kamerun [Cameroun]).
FIG. 105. *trajanus* cline to *vansomereni* Poulton, ♂ (Eastern Congo: Beni-Irumu).
FIG. 106. *trajanus vansomereni* Poulton, ♂ paratype (Uganda: Entebbe). Photos BMNH Nos 51252–3.
FIG. 107. *trajanus vansomereni* Poulton, ♀ paratype (Uganda: Entebbe). Photos BMNH Nos 51254–5.

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PLATE 15

Euxanthe trajanus (Ward)

Upper & undersides

FIG. 108. *vansomereni* Poulton, ♂ (Uganda: Mawakota).
FIG. 109. *vansomereni* Poulton, ♀ (Uganda: Mawakota).
FIG. 110. *gabonicus* Le Cerf, ♂ type (Gabon, Echibanga). Photos BMNH Nos 51250–1.
FIG. 111. *gabonicus* Le Cerf, ♂ (Gabun).
FIG. 112. *antonius* Rousseau-Decelle, ♂ paratype (Congo: Kafakumba, Katanga). Photos I. Grahame.
FIGS 113, 114. *nigeriae* subsp. n., ♂ holotype (Nigeria: Ikom, Ogolo Prov.) (*Jackson*).


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PLATE 16

Euxanthe

Upper & undersides

FIGS 115, 116. *trajanus nigeriae* subsp. n., ♀ allotype (Nigeria: Ikom, Ogolo Prov.) (*Jackson*).
FIGS 117, 118. *tiberius tiberius* Grose-Smith, ♂ holotype (Kenya: Mombasa). Photos BMNH Nos 51260–1.
FIGS 119, 120. *tiberius tiberius* Grose-Smith, ♀ allotype (Kenya: Mombasa). Photos BMNH Nos 51262–3.
FIG. 121. *tiberius tiberius* Grose-Smith, ♂ (Kenya: coastal forests).
FIG. 122. *tiberius tiberius* Grose-Smith, ♀ (Kenya: coastal forests).

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PLATE 17

Euxanthe tiberius Grose-Smith

Upper & undersides

FIGS 123, 124. *meruensis* van Someren, ♂ type (Kenya: Meru). Photos BMNH Nos 51268–9.
FIGS 125, 126. *meruensis* van Someren, ♀ type (Kenya: Meru). Photos BMNH Nos 51270–1.
FIG. 127. *meruensis* van Someren, ♂ (Kenya: Mt Kenya, Meru Forest).
FIG. 128. *meruensis* van Someren, ♀ (Kenya: Mt Kenya, Meru Forest).
FIGS 129–136. *tiberius*. Early stages from ova laid 25.vii.1964, obtained from a ♀ collected in the Makadara Forest.
FIG. 129. First instar larva, 3.ix.1964.
FIG. 130. Second instar larva, 6.ix.1964.
FIG. 131. Third instar larva, 11.ix.1964.
FIG. 132. Fourth instar larva, 15.ix.1964.
FIG. 133. Fifth instar larva, 26.ix.1964.
FIG. 134. Larval heads from the five instars.
FIGS 135, 136. Pupae, 1.x.1964.

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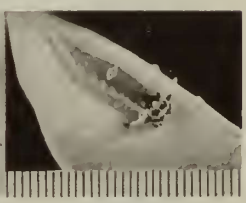

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PLATE 18

Charaxes

Upper & undersides

FIGS 137, 138. *octavus Minig* = *patergodarti* Neidhoefer, ♂ holotype (Central African Republic: Bangui). Photos J. Neidhoefer.

FIGS 139, 140. *ansorgei rydoni* van Someren, ♀ neallotype (Tanzania: Usambara Mts, Lushoto, Magamba, 6000 ft, 4.iii.1973) (*I. Bampton*). (From coloured photos by W. H. Henning.)

FIGS 141, 142. *eudoxus lucyae* subsp. n., ♀ holotype (Tanzania: Usambara Mts, Magamba Forest, Lushoto, 6000 ft, 4.iii.1973) (*I. Bampton*). (From coloured photos by W. H. Henning.)

FIGS 143, 144. *eudoxus lucyae* subsp. n., ♀ paratype (Tanzania: Magamba Forest, Lushoto, 5000 ft, ii. 1974) (*S. C. Collins*). Photos BMNH.


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PLATE 19

Charaxes

Upper & undersides

FIGS 145, 146. *cithaeron cithaeron* ♀ aberration *whitei* ab. n., holotype (South Africa: Natal, Eshowe, 8.v.1971) (*R. S. White*). Photos BMNH.

FIGS 147, 148. *usambarae* ♀ form *collinsi* forma n., holotype (Tanzania: Usambara Mts, Amani, x. 1973) (*S. C. Collins*). Photos BMNH.

FIGS 149, 150. *martini* van Someren, ♀ (Malawi: Mlange Mt, Malosa Stream, 15.x.1971) (*C. H. McCleery*).

FIGS 151, 152. *mafuga* van Someren, ♀ neallotype (Uganda: Ruhiza, Impenetrable Forest, 8000 ft, 28.ix.1972) (*I. Bampton*). Photos BMNH.


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